



“The world is facing a food shortage”

THE GLOBALISATION OF THE FOOD SUPPLY CHAIN

NSF-CMi reports

Naturally enough, talk about the challenges facing the food industry today tends to focus on UK or European issues – farmgate prices, the crisis in the dairy industry, forthcoming EU legislation. The so-called ‘emerging issues’ – the ethical, environmental and social concerns of our customers that are currently driving the standards agenda, also have their place.

Shockingly, the biggest challenges faced by the food industry today actually stem from issues that are only just starting to hit the mainstream headlines, yet will have the biggest influence on the shape of the global food industry over the next 20 years.

The world is facing a food shortage. By the year 2050 the world population will have exploded from the current 6.5 billion to over 9 billion. Global warming is impacting on agriculture with changing weather patterns meaning that farmers will encounter problems they have never before experienced: much greater weather variability, higher average temperatures, increased numbers of extremely hot days, shorter growing seasons, higher solar radiation, much greater moisture stress, added salinity from salt water incursion and irrigation systems, and new combinations of pests and diseases. Studies by the Intergovernmental Panel on Climate Change (IPCC) and the Consultative Group on International Agricultural Research (CGIAR) predict that climate change will have dramatic impacts on food production. Some estimate that crop yields in some regions could drop by as much as one third in just two decades without immediate investments in developing new crop varieties.

Meanwhile, increasing urbanisation to cope with vastly increasing populations will take its toll on the amount of land available for agriculture, as will the growth of crops for biofuel production.

THE DEVELOPED NATIONS' RESPONSE TO FOOD SHORTAGE

We are already seeing the responses of the wealthier nations to this: developed countries are buying or leasing agricultural land in the less developed world. In November last year, *The Financial Times* reported that South Korea's Daewoo had signed a 99-year lease for half of Madagascar's arable land. Some of the largest deals include South Korea's acquisition of 700,000 hectares in Sudan and Saudi Arabia's purchase of 500,000 hectares in Tanzania. India has lent money to 80 companies to buy 350,000 hectares in Africa. At least six countries are known to have bought large land holdings in Sudan – one of the least food-secure countries. Other countries that have acquired land in the past year include the Gulf States, Sweden, China and Libya. Those targeted include not only fertile countries such as Brazil, Russia and Ukraine, but also poor countries such as Cameroon, Ethiopia, Madagascar and Zambia.

Less drastic, but no less worrying, is the complementary trend to increasingly source from the developing nations and, as a corollary, from smaller suppliers.

The globalisation of the supply chain therefore has two key implications for the Western food supply chain – on the one hand, in the areas of ethical trading and sustainability, and on the other hand, around food safety. The impact has been to send Western retailers and suppliers, under the watchful eye of the Government and the consumer, to lead the way and do their bit for corporate responsibility, while at the same time reaching for shelter from the potentially catastrophic effects of a food supply chain compromised by the insecurity of its supply sources, through increasing intervention and control.

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Shoppers face a dilemma of feeding the family with a five-a-day healthy vegetable option while contributing to climate change and stealing food from the hungry. It is not surprising that under the weight of all of the mixed guilt messages the consumer simply switches off or relies on the trusted supermarket brand to do the right thing for them.



IMPLICATIONS FOR THE UK FOOD SUPPLY CHAIN

What does all this mean for farmers? It means that the ability to understand, manage and control an increasingly complex web of on-farm, ethical, environmental and social issues, and to absorb new issues that are emerging almost daily, will be ever more important in order to hold one's own and seek advantage in a fiercely competitive environment.

ETHICAL AND SUSTAINABILITY ISSUES

The concept of corporate social responsibility has been around for many years and has developed from the initial notion of large corporations 'doing good' - largely through activities in local communities - to a full-blown sense of responsibility for a sustainable world future. As Peter Lauritzen, chief operating officer of Arla Foods UK said recently, on announcing its new billion-litre processing plant due to open in 2012: "Arla is totally committed to a long-term sustainable future in the UK and the construction of the new dairy confirms that commitment. Incorporating the most sustainable building techniques the dairy will be the largest, most efficient and environmentally advanced in the world."

In the past five years we have seen an increasing amount of Fairtrade products on our supermarket shelves. This was a direct response to public concerns over who produced our food rather than

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how our food was produced. Although actually a small niche in volume terms, the Fairtrade publicity activity propelled them into the consumer spotlight. Fairtrade itself is not a worker welfare standard, but it does have a strongly recognised consumer label and it became a worker welfare sub-brand in the minds of many consumers. Communicating a single issue such as worker welfare to a wider consumer base is complicated. In reality it would form part of a wider responsible farming policy and the emerging standards such as Rain Forest Alliance are now moving into this more holistic space combining people, planet and profit under the sustainability agenda.

With his commitment to sustainability at the top of the agenda, sourcing from home has become a priority for many retailers and suppliers. This clearly presents itself as an opportunity for 'local' growers and suppliers - or, on the other hand, as a threat - of being left behind by your competitors. Baxter Storey, the contract caterer, has made the headlines by aiming to source all its meat from British farmers, with our higher

welfare standards, and to run a sustainable supply chain - including keeping food miles to a minimum, and ecologically supporting local farmers and the countryside. 3663 has opened a new multi-million pound sustainable food distribution hub which uses rainwater, recycles packaging, and generates a percentage of electricity from renewable sources of energy. Further afield, Cadbury is investing £45 million over the next 10 years to secure the sustainable economic future of cocoa farming in Ghana, India and the Caribbean, through farmer education programmes, and Kraft Foods, the parent company of Kenco coffee now sources 75% of its beans from Rainforest Alliance Certified farms.

FOOD SAFETY ISSUES

Both the Government and the consumer are showing increasing attention to food safety and security of the food chain. The Food Standards Authority is proposing to implement the EU regulation introducing increased controls for 'high risk' imports, due to come into force on the 25th January, 2010. These include fresh produce imports from Dominican Republic, Thailand and Turkey. The aim is to provide additional protection for consumers and, whatever you think of it, there will be more of the same coming this way. At the same time there are growing public concerns about food safety as witnessed in the publicity around outbreaks of *Salmonella*, *E coli*, BSE, *Listeria*, *Bisphenol-A* etc.



UK RESPONSES AND LESSONS FOR FARMERS

NSF-CMi, which is widely known as the leading international provider of farm assurance, has been intimately involved as industry and private standards have evolved over time to meet customers' and consumers' needs. David

Richardson of NSF-CMi says: "Certifications are evidence of commitment, but the picture is far more complex now. The prizes will go to suppliers who can demonstrate their ability to keep on top of the issues – managing their exposures to the risks, while proactively exploiting opportunities to support their customers' corporate responsibility requirements."

Mr Richardson, who is managing director of NSF-CMi's International Certification and Risk Services division, believes there are key lessons that farm businesses in the UK need to learn.

"Retailers will need 'partners' who can support the development of innovative, convenient food products without the risk to customers or their brand," he says. "The combination of growing customer concerns about food safety and the focus of the press on food safety issues has created an opportunity for high quality producers. Customer confidence in the safety of the brand comes from regular evidence of the responsibility of the brand – retailers and food service will be pushing this responsibility down the chain and checking on their suppliers' safety and ethical standards, but also working collaboratively with suppliers to identify solutions to new challenges, for example by setting up development groups that involve producers and stakeholders. Their aim will be to minimise the number of issues potentially threatening the reputation of their brand."

Mr Richardson explains that developments in product assurance and brand protection are just as much about working smarter, as harder. "It's not simply about measuring and certifying more and more issues through a tick box approach."

The Government has recognised that proliferation of regulation is not sustainable and has introduced the key concept of "better regulation" whereby regulatory effort is targeted at the poorest performers while leaving the compliant majority largely alone to manage themselves more effectively and demonstrate compliance via third party certifications and other evidence.

In the same way the whole area of compliance and product assurance is turning to look at exposures to risk. Why waste equal time on areas

that you know are compliant and/or low risk to the business and/or customer? The point is surely to focus resource where it's needed – on the areas of greatest exposure.

"The key is information management," says Mr Richardson. "At NSF-CMi we have developed the concept of Intelligent Assurance, a process that enables farm businesses, especially those with multiple units or enterprises, to manage and interrogate information databases to isolate and manage key exposures across certifications, business risk, ethical, environmental and social issues, in a process of continuous improvement."

"Intelligent Assurance has the flexibility to identify, measure and put in place corrective actions for a business's greatest areas of weakness across any number of issues. It's about making the wealth of information you have available work for you, not swamp you."

WHAT DOES INTELLIGENT ASSURANCE MEAN?

The components of Intelligent Assurance go well beyond certification. The core elements are: assessment and certification, risk quantification, mapping of emerging issues, and knowledge management.

Depending on individual needs and business aspirations, certification requirements, risk assessment and evaluation of emerging issues can all be included in an assessment process either at individual farm level or across the supply chain. You can then put in place strategies to help handle these requirements.

Effective knowledge management is the key to Intelligent Assurance. All assessment data, whether it is from industry and customer standards or from specialist risk assessments, is increasingly able to be captured in a central database. Detailed management information and analysis is available via a dedicated web portal which can be interrogated to provide reports quickly, accurately and in easily-understood formats, enabling producers and purchasers to benchmark farm performance against a range of criteria. But most importantly, the data is ACTIONABLE.

Relevant strategic and tactical actions include:

- The audits and reports are completely tailored to cover and report on the elements you need.
- The information enables you to: identify and manage weak points in your operations; actively manage and improve operations to your own and customers' requirements; keep ahead of customer requirements.
- And, by acting on the data and feeding it back into your audit process, you create a process of continuous improvement.

Drivers of global food safety

- Growing interest of the press and media in food safety issues
- Food safety incidents that have global implications – *Salmonella* in peanuts, Sudan 1, Melamine, BSE
- Growth of private label brands from international retailers
- Growing demand for high quality ethnic convenience meals



Emerging issues and their implications for food businesses

EMERGING ISSUE	IMPLICATIONS
Sourcing food from less developed countries	Increased risk of food safety issues from raw materials
Growing food safety concerns	Increased focus on food safety by customers, the press and by governments
Growth of private label	Increased focus on food safety by major retailers
Uncertain economy	Less money to invest in food safety systems?