

From animal farm



Changing markets, co-operation in the chain, scale increases, internationalisation, liberalisation, strict quality requirements: the modern farmer has a lot to think about. 'Farmers will have to become entrepreneurs.' This is how Gerard van Oosten, Managing Director of the Netherlands' Southern Agricultural and Market Gardening Organisation (Zuidelijke Land- en Tuinbouworganisatie: ZLTO), describes the process of change sweeping through the farming community. ZLTO is helping farmers and market gardeners to make the necessary transition.

Gerard van Oosten has never strayed far from his agricultural roots. He studied at the Agricultural College in Wageningen, and has been Managing Director of ZLTO since 1999. ZLTO, with 21,000 members, has since been active in setting up economic activities, and has been very successful. For example, NCB Development, an association allied to ZLTO, is now the major shareholder in Best Agrifund, which recently became one of Europe's meat-market leaders after buying up a number of meat companies in Germany and the Netherlands. This investment offers Dutch pig and beef farmers new perspectives, and is one good example of how ZLTO is taking advantage of the changing market in the agricultural sector.

'Farmers will have to become entrepreneurs'

Economic motor

The agricultural sector is going through a crucial phase. Van Oosten: 'I honestly believe that in 25 years' time, our branch of industry will still be an important economic motor in Western Europe. Provided the agricultural sector manages to stay focused on the customer and starts producing in a market-oriented way in close co-operation with partners in the chain. For example, there is an enormous concentration of consumers with capital in the Berlin, Paris, London triangle. The majority of their food will have to be produced in their own regions. And health and food safety will play an increasingly important role in the consciousness of these West-European consumers. Fuelled by crises such as BSE, swine

fever and avian flu, people are refusing to tolerate disreputable practices with animals and the use of untrustworthy raw materials. More and more consumers are demanding food that is produced in a sustainable way, even if it costs more.'

Tracking and tracing

Farmers will therefore have to be able to show that the food they produce is reliable. Technology can help them do this. Van Oosten: 'With tracking and tracing, all the data on products in the entire chain can be pinned down. For example, where does this particular meat come from, which crop protection substances were used, what kind of processing did it undergo? Which cow was in which stall and

what did it eat? By recording all this data in an information chain, you can establish the quality of a product at any given moment. However, farmers cannot take part in that information chain without becoming digital and ready for the internet, even though they are often located in those very areas where glass fibre cable is rare. But the technology has a solution for this too. More and more farmers have wireless access to the internet.

ICT on the farm

Van Oosten: 'The agricultural sector has to satisfy extensive, often detailed regulations. ICT can lighten the administrative load - for example, data only needs to be recorded once and then sent through

to digital farm

Imtech Food & Feed Competence Centre

Whether it involves the maintenance of machines, the development of production operating systems in the food industry, or ICT solutions for vegetable auctions, the recently established Imtech Food & Feed Competence Centre now provides a single point of contact for complete technological services. To achieve this, Imtech ICT, Imtech Projects and Imtech Belgium are working together in the area of technical automation. The Competence Centre has the capacity to provide integral technical services over the full breadth of services. In addition, it takes account of all legal regulations (environment, quality, safety). Given the high requirements for food safety, it is vitally important that flawed food can be traced as quickly as possible. If necessary, right back to the farm. All of this means that the management process is now almost completely automated and digitalised. The Imtech companies are active in the entire production chain: in the installations as well as in the process and organisation. In this way, Imtech is covering all the disciplines: ICT, electrical and mechanical engineering.

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the internet to the people who need it.' Ziezo.biz, an initiative to which ZLTO has contributed, is part of this development. It is a marketplace on the internet for farmers and market gardeners. 'Not only can they sell their products there, they can also store their data. Mineral records, cattle registration, the use of herbicides and pesticides. And participants can indicate in a profile who is allowed to use their data - for example, the dairy factory for the source of the milk, the accountant for all financial data, the government for the mineral records. The latter offers particular advantages. If, as a chain, you have all the data listed categorically and take measures to manage the risks, you can also propose making more flexible agreements with the government with regard to inspections and supervision.'

From energy consumer to energy source

More and more, technology is becoming an integral part of the agricultural sector. Van Oosten lists some examples. 'Greenhouse market gardeners have the image of being high energy users. But modern technology allows them to change from being energy consumers to energy suppliers. The greenhouses function as collectors of solar energy that the market gardeners can use to produce their crops. And they can even pass on their energy surplus to the national grid.' Another great example is the tractor equipped with a satellite transmitter. The farmer has to enter the co-ordinates in advance, after which he can spray, fertilise or sow his crops with amazing precision. ZLTO is often at the root of these kinds of



Say Cheese

Before you put your Dutch cheese in a sandwich or arrange it on your cheese-board, it will have gone through quite a complicated procedure. Scale increases, stock optimisation and stringent government regulations for the environment, quality and safety are changing the logistical process in the cheese industry. Imtech Projects (the business unit Industry - Imtech Control Systems) recently developed the Cheese Management System (CMS) for a cheese warehouse belonging to Frico Cheese. CMS supports the administrative procedure for delivered cheese (externally or from the company's own brine tray) and keeps important data up to date: cheese types, stock data, age, box types and machine data. The processing schedule of the cheeses is also recorded. CMS makes tracking and tracing easy. All it needs is the touch of a button to show exactly where a consignment came from, how the cheese was processed and where it is located at any particular time. m.c.vandijk@imtech.nl

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Lynx:

spider in an agriculture web

Imtech (Imtech ICT) has developed a chain information system that provides advanced solutions for people in the market gardening sector who want to keep each other up to date: Lynx. Buyers and sellers of vegetables and fruit who have a subscription to Lynx are

assured of good communication with their business relations. Besides the standard exchange of messages, the system also includes applications for exchanging price information, an auction based on internet technology, and the exchange of digital information with the wholesale trade and chain stores (Electronic Data Interface). At this moment, Imtech's Lynx team is also working together with Q-Point and Intenia on a pilot for tracking and tracing in the market gardening sector. To do this, they are elaborating on experiences with Intenia's Tracking & Tracing Engine, which is already in use in the salmon, chicken and pork chains.

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technological developments, functioning as the driving force behind the project and providing assistance with the practical implementation. Van Oosten: 'Our sector is under immense pressure from society, but the strict requirements of the government and the consumer will just make us that much stronger in the long run.'