

Total Surveillance of Animal Production

IKB: triple quality assurance

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The route travelled by a slice of meat or a carton of eggs before reaching a shop is long and sometimes quite complex. Cattle farmers are rarely the first link in the chain. Calf farmers, for example, obtain their calves from dairy cattle farms. Piglets are bred at so-called closed farms themselves or are obtained from special breeding farms. Something similar exists for laying hens and broilers, only in this case the production process is a little more complex, as it also involves chick hatcheries.

Once the animals have reached the required weight or the eggs have been gathered, they are transported to the slaughterhouse, the egg packing station or foreign destinations. After the slaughterhouse comes the meat cutting plant, where the meat is cut and optionally boned. And after the traders' link, the meat and eggs ultimately arrive at the shops at the end of the chain.

The importance of quality assurance

The Netherlands has a good reputation as a producer of high-quality food. The livestock, meat and egg sector in particular owes this reputation partly to the high level of expertise gained in many years of experience in production and processing. When people in the Netherlands started to care ever more about safe, healthy food, this sector was among the first to introduce quality guarantees. In the meantime, quality assurance has come to rank prominently on the agendas of many European countries. The quality assurance systems currently used throughout Europe are to a large extent based on the Dutch IKB system for production chain control (IKB stands for INTEGRALE KETEN BEHEERSING = total surveillance of animal production).

Consumers' views on food have changed considerably in the past 25 years or so. Of course former generations wanted their meals to be tasty and nutritious, too. But as far as aspects of

health and food safety were concerned, they had every faith in the government's vigilance. In the past, the distance between consumers and producers was much smaller than it is nowadays. The route travelled by foodstuffs from a farm to the kitchen seemed a lot less complex than that involved in today's production chain. The ranges on offer in the shops and people's expenditure were moreover much more limited. All that has changed. The prices of foodstuffs now restrict expenditure to a much lesser extent and shops offer consumers a virtually infinite range of articles. But at the same time, consumers have become alienated from the agricultural world and are often totally unfamiliar with their foodstuffs' production chains. When, in our present information society, certain information comes to light which may in former days very well have escaped notice, that information becomes widespread in no time. Something that has also changed drastically in the past few years is people's cooking behaviour. People are spending ever less time on cooking their meals. Convenience food and eating out of home have consequently become extremely popular. On top of all this, competition has increased substantially, both within the EU and on a global basis. Some companies respond to the cut-throat competition by resorting to improper production methods. That's why quality assurance has become so very important. This brochure tells you all about how the Dutch livestock, meat and egg sector tackles quality assurance in everyday practice. It covers the background, the basic principles and effects of the IKB programme for production chain surveillance in the cattle, calf, pig, poultry and egg sectors.

Introduction

In the early 1990s the joint livestock sector developed a system for promoting, and above all guaranteeing, the quality of livestock, meat and eggs. This system for the total surveillance of animal production was called *Integrale Keten Beheersing*, or IKB. In this system, every single link in the production chain - from farmers up to and including retail traders - is monitored to ensure the products' quality. The IKB system was introduced because the market came to be driven ever more by demand instead of production. Later on, consumers' views on the system's image became more important and international competition started to play a greater role.

The standards

The IKB standards stipulate for example that livestock or poultry farmers may use only feeds with special guarantees. Any drugs required for sick animals must comply with stringent requirements. The drugs must moreover be prescribed and administered by an accredited veterinary surgeon.

Animals may be transported to a different farm, slaughterhouse or some other destination only by specially approved transport companies. The aim of all these regulations is to ensure compliance with requirements concerning animal welfare and hygiene. All slaughterhouses that wish to participate in the IKB programme must adhere to extra requirements, too. They must for example ensure that IKB animals are kept separate from other animals at all times, they must keep records of the animals' origins and they must comply with strict hygiene regulations. Similar conditions exist for the companies that cut and process the meat and for IKB-accredited egg packing stations.

And the final links in the chain, the butchers and supermarkets, must also comply with special requirements. IKB meat may for example not be offered for sale unpacked alongside non-IKB meat. In shops, pork and eggs produced according to the IKB system are recognisable by a special PVE/IKB Quality Mark.

Principles

Farmers and companies participate in the IKB programme on a voluntary basis. Once they have signed the IKB agreement they are however obliged to meet a series of requirements and must be able to prove compliance if so requested. Checks are regularly carried out to see whether the participants comply with the system's regulations.

An extremely important aspect of the IKB programme is the exchange of information between the individual links in the chain. A sound information system ensures that the origins of any animal, piece of meat or egg can be traced at any stage in the production chain.

The IKB quality system is constantly adjusted on the basis of the market's requirements. Ever more farmers and companies in the livestock, meat and egg sectors are participating in the various IKB schemes. This is resulting in a growing range of products of a guaranteed, high quality in which consumers may rightly have every faith.

IKB operates on behalf of, and in the interest of the livestock, meat and egg sectors

Productschappen Vee, Vlees en Eieren

The Productschappen Vee, Vlees en Eieren (PVE; the Dutch Product Boards for Livestock, Meat and Eggs) are the joint secretariat of the Product Board for Poultry and Eggs and the Product Board for Livestock and Meat. It is a statutory trade organisation that operates for the Dutch livestock, meat and egg sectors. So the PVE's activities cover the entire production chain, from farms up to and including shops - in other words, livestock farmers and traders, slaughterhouses, egg packing stations, the meat and egg processing industries and the sales outlets.

The Dutch livestock sector

For many centuries the Dutch livestock sector has been a very important branch of industry. Certain elements of this sector even have a symbolic value in countries outside the Netherlands. It is for example very difficult to imagine Dutch pastures without grazing cows in them. But the idyllic farm life so nostalgically portrayed in schoolbooks of bygone days, with pigs happily basking in pools of mud and hens scratching away in farmyards, has become a thing of the past. The times when farmers killed their own pigs and took a few eggs along to the market are over.

The former small-scale, mixed-farming holdings have in a very short time evolved into specialised cattle, pig and poultry enterprises. Like all other branches of industry in the current economic climate, the sector resulting from this development cannot survive without a modern entrepreneurial approach. Expansion, intensification, modernisation and quality assurance have turned the Dutch joint livestock, meat and egg sector into one of the largest agricultural exporters worldwide.

The pig sector

The Dutch pig sector is an intensive-farming sector. At the end of 1999 there were 16,426 pig farms with a total of 13.6 million animals in the Netherlands. The main development in this sector over the last few years in particular has been expansion. The changes in manure legislation will only cause this process to intensify.

Dutch pigs are renowned for their constant quality and uniform weight classes. Large quantities of pork are exported to countries outside the Netherlands, also in the form of bacon and meat products. Dutch piglets and fattening pigs are also very much in demand outside the Dutch borders.

The cattle sector

The prime aim of the Dutch cattle sector is the production of milk, but the sector also supplies

meat of a good quality. Numerous specialised beef-producing farms operate for the top segment. The milk production restrictions imposed by the EU are causing the cows' average milk yield to increase and the number of animals to decrease.

At present, some 4.2 million cows are kept at a total of almost 62,000 cattle farms. In 1999 their beef production amounted to 297 thousand tonnes, 209 thousand tonnes of which were exported.

The veal calf sector

The Dutch veal calf sector originated as a spin-off of the dairy cattle industry many years ago. Since then, it has evolved into an independent sector operating in its own right.

The Netherlands has over 2,500 calf farms. Some 581,000 calves are imported into the country every year. The sector's overall veal production amounts to 210 thousand tonnes, over 90 percent of which is exported. In addition, 35,000 live calves are supplied to foreign destinations.

A distinction is made between white and pink veal. This difference in colour is a consequence of the use of milk and roughage, respectively. In practice, the two are distinguished on the basis of slaughter weight. With an 85% share, white veal calves are still in the majority by far. Most veal calves are nowadays housed in groups.

The poultry sector

With more than 2,200 layer farms and 1,644 broiler farms, the Dutch poultry sector is another branch of the country's intensive farming industry with an impressive productivity that contributes substantially to Dutch exports. In 1999 this sector produced 675 thousand tonnes of poultry meat. With its wide variety of products it very successfully meets the consumers' different requirements.

The poultry sector also produces 29,500 tonnes of turkey meat. In 1999, it produced 9,712 million eggs. That same year, the Dutch egg-products industry produced almost 133 tonnes of egg products. In total, 618 thousand tonnes of chicken and turkey and 8,523 million eggs are sold outside the Netherlands.

Participation in the IKB Pig scheme

The IKB Pig scheme was introduced in 1992. By the spring of 2000 some 11,500 pig farmers were participating in the scheme. That's about 70% of the total number of pig farmers in the Netherlands. 86 of these farmers comply with the requirements of the Free-Range Pig scheme. At present, more than 350 pig traders are IKB-accredited. Together, they trade 13.5 million IKB pigs a year, which is about 80% of the pigs supplied to Dutch slaughterhouses. This figure includes about 10,000 free-range pigs.

There are 27 IKB chains, two of which operate under the 'free-range scheme'. In total, 25 slaughterhouses comply with the IKB regulations and almost 100 meat cutting plants. In the spring of 2000, pork bearing the PVE/IKB Meat Quality Mark could be purchased at over 2080 meat outlets. The majority of these outlets are supermarkets, but they also include over 250 independent butchers, 80 of which are 'free-range butchers'.

Participation in the IKB Veal Calf and Cattle schemes

The IKB Cattle scheme was introduced in 1996. By the spring of 2000 almost 50,000 cattle farmers were participating in the scheme, representing almost 80% of the total number of primary cattle farms. About 90% of all Dutch cattle is produced in accordance with the regulations of the IKB scheme.

Almost all of the more than 2,500 veal-producing farmers in the Netherlands comply with the requirements of the IKB schemes for White and Pink Veal Calves. These schemes were

introduced in 1996 and 1997, respectively. In addition, seven slaughterhouses and meat cutting plants are IKB-cattle-accredited and eight are IKB-veal-calf-accredited.

Participation in the IKB Egg, Chicken and Turkey schemes

The IKB Chicken scheme was introduced in 1992 and the IKB Egg scheme in 1994. Over 1,000 of the Dutch broiler breeder in rearing farms and almost 280 of those in other countries are participating in the schemes.

Among layer farms, participation in the IKB Egg scheme has increased to almost 70% of the Dutch hen-house capacity (640 farms). In addition, 10 foreign layer farms are participating. In the meantime 78 egg packing stations have been IKB-accredited. They handle 79% of the total supply of eggs.

Since 1 January 2000 the PVE/IKB Egg Quality Mark has been in use in Dutch shops. By the spring of 2000 almost 1,300 Dutch broiler farms were participating in the IKB Chicken scheme (95% of the total hen-house capacity) and almost 490 foreign ones.

19 Poultry slaughterhouses (90% of Dutch production) and 18 meat cutting plants are IKB-Chicken-accredited.

Almost all the Dutch table turkey farms are participating in the IKB Turkey scheme, as is the one turkey slaughterhouse operating in the Netherlands.

Public concerns

Today's consumers are discerning and well-informed, in particular concerning aspects of food safety. Since people became aware of the possible consequences of BSE for humans, issues like foodstuffs and their origins, composition and preparation have become major public concerns. At the same time, however, our food has become safer than ever before.

Public concern for food safety now includes aspects such as animal welfare, care for the environment, the need versus risks involved in hormone supplements, the labelling of meat and for example genetic engineering of crops (for use as feeds). Such consumer concerns are nowadays the limiting conditions determining food production in the Netherlands.

IKB stands for extra quality assurance

Terms of participation

Farmers and companies participate in the IKB schemes on a voluntary basis. But once they have agreed to participate, they are obliged to ensure compliance with the requirements to which they have committed themselves via the IKB agreement. There are different IKB regulations for the different types of animals and for the different links in the chain (see also pages 6 - 11). On the whole, the regulations are more stringent than the statutory requirements.

To ensure compliance with the IKB requirements each individual link in the chain must keep various records in their IKB administration systems. They have to inspect various aspects of their own (farm) practices and keep records of the results of their inspections. This system of self-administered inspections enables each link in the chain to provide certain guarantees to the next link, resulting in true chain production.

Exchange of information

All the farmers and companies participating in any of the IKB schemes must provide specific information on the animals or products they supply to the next link in the chain. The information concerned is all recorded, to ensure that it can be traced at a later stage. This leads to more efficient production and better operating results.

IKB-accredited slaughterhouses are in turn required to provide certain information to the farmers, enabling them to optimise their farm practices. Pig farmers, for example, are sent

reports on any defects observed in animals in slaughtering. If, say, a large number of pigs were found to have a pulmonary defect, this could mean that the system controlling the climate in the animals' sties has to be adjusted. The exchange of such information helps to improve both the animals' welfare and the farms' operating results.

Tracking and tracing

To ensure that the various quality guarantees are properly met, tracking and tracing in the IKB systems is a focus of attention. IKB animals and products must at all times be kept separate from animals and products without IKB guarantees. And all IKB animals and products that are supplied to the next link in the chain must be accompanied by IKB delivery documents.

An important aspect of the IKB systems is the ability to trace an animal or product back to the previous link. It is for example possible to identify the farm of origin of any cow supplied to a slaughterhouse.

Of vital importance in this context is the statutorily required Identification and Registration (I&R) system.

Inspections and sanctions

All IKB participants have certain responsibilities and are required to perform certain inspections. They must for example inspect the quality of all incoming animals or products to check whether they comply with the IKB requirements. Apart from this, the participants are visited by representatives of independent inspection organisations. The pig farmers, for example, are visited by an inspector of the Gezondheidsdienst voor Dieren (Dutch Animal Health Service). The entire IKB system, including the inspection procedures and results, is moreover audited once a year on behalf of the sectors concerned by the independent organisation SGS Agrocontrol/TNO Voeding (the latter is the Food department of the Netherlands Technological Institute). So the IKB system offers consumers and purchasers the guarantee of triple quality assurance.

Participants who fail to comply with the IKB requirements are sanctioned. This may vary from a warning, a higher inspection frequency or a fine, to exclusion from the scheme. Farms or companies that are debarred from further participation may no longer use the IKB quality mark for their animals or products.

Formulation of the IKB regulations

The IKB regulations are formulated by representatives of the sectors concerned united in the management team of the Productschap Vee en Vlees (PVV; Product Board for Livestock and Meat) and that of the Productschap Pluimvee en Eieren (PPE; Product Board for Poultry and Eggs). It goes without saying that each regulation is based on a thorough study of its consequences and implications. Committees comprising representatives of the sectors concerned have been formed for each type of animal covered in the schemes.

The IKB regulations are constantly updated. There are plans for adjustments in the short and long term. Practical developments will determine what (new) elements the IKB systems will contain in a few years' time and how many farmers and companies will then be participating in them.

General

There are different IKB requirements for the different links and different types of animals. The most important requirements are outlined below. The requirements that hold for all

livestock and poultry farmers and for all slaughterhouses, meat cutting plants and egg packing stations will be discussed first. They will be followed by the requirements for the specific types of animals.

Livestock and poultry farmers

All livestock farmers must comply with the Identification and Registration (I&R) regulation to ensure that the animals' origins can be traced. The I&R system used for poultry is called the Koppel Identificatiesysteem Pluimvee (Poultry Batch Identification System). The success of a system with extra quality guarantees depends on the use of good feed. All IKB livestock and poultry farmers must therefore give their animals feed that has been produced according to the Good Manufacturing Practice (GMP) code. The Productschap Diervoeder (Industrial Board for Animal Feed) grants GMP accreditation to feed suppliers who can prove that they manage their production process in accordance with the code's requirements. The feed suppliers are to this end regularly inspected.

Veterinary surgeons must in their own work and in all the work they do for IKB livestock and poultry farmers adhere to the regulations of the code for Good Veterinary Practice (GVP).

This code was formulated by the Koninklijke Nederlandse Maatschappij voor Diergeneeskunde (Royal Dutch Veterinary Society). The veterinary surgeons are checked for compliance every year.

Slaughterhouses, meat cutting plants and egg packing stations

Some IKB-accredited slaughterhouses, meat cutting plants and egg packing stations buy non-IKB products besides IKB animals, meat or eggs. They must ensure that all IKB animals and products are kept strictly separate from other animals or products in all parts of their premises. They must be able to prove this on paper and in practice. This is what is known as channelisation.

IKB-accredited slaughterhouses, meat cutting plants and egg packing stations must adhere to the regulations of a hygiene code. The Dutch egg packing stations already employ HACCP principles. This means that they must identify and control all the critical food safety points at their premises.

The rules for red-meat slaughterhouses and cutting plants are laid down in a special Hygiene Code Manual. The slaughterhouses and cutting plants must be able to prove that they employ hygienic working methods. And they must also comply with regulations relating to the design and layout of their premises, carcass inspections and cleaning and disinfection.

The IKB Pig and Free-Range Pig schemes

In the IKB Pig and IKB Free-Range Pig schemes, the slaughterhouse serves as the central point for the preceding links in the chain. The slaughterhouses conclude IKB agreements with pig farmers, livestock traders and livestock transport companies. The slaughterhouses are moreover responsible for ensuring that the preceding links comply with the IKB requirements. They have farmed out the inspections required to enforce the various regulations to independent inspection organisations such as the Gezondheidsdienst voor Dieren (Dutch Animal Health Service).

To prevent the risk of veterinary drug residues in (free-range) pork, a 'List of Approved Pig Drugs' has been drawn up. IKB (free-range) pigs may be given no drugs other than those included in this list. After an animal has been given one of the listed drugs, it may not be supplied to a slaughterhouse for a specified length of time. The waiting times prescribed in the List of Approved Pig Drugs are generally longer than the statutorily prescribed times. Since 1 January 2000 IKB (free-range) pigs must be transported by a trader or transport company accredited in accordance with the Quality Scheme for Livestock Trade or Livestock

Transport. The traders and transport companies are obliged to adhere to the regulations of the Welfare Code and they must take various specific measures aimed at preventing animal diseases.

The IKB Free-Range Pig scheme was developed in response to consumers' concerns for extra animal welfare. This scheme includes several additional requirements alongside the regulations of the standard IKB Pig scheme. For example, the piglets' tails may not be docked and the pigs must have extra range of movement indoors and outdoors. Free-range sows must moreover be housed in groups.

The IKB Veal Calf scheme

The most important element of the IKB Veal Calf scheme is the inspection for the absence of growth stimulants. Inspectors of the independent Stichting Kwaliteitsgarantie Vleeskalversector (Foundation for Quality Guarantees in the Veal Calves Sector) perform inspections at IKB-accredited veal calf farms.

The IKB Veal Calf scheme enables livestock farmers, traders and slaughterhouses to comply with the EU guideline relating to self-administered inspections. At the start of 2000, European legislation obliges these links in the chain to perform inspections for the presence of certain banned substances. Early 2000, the IKB Veal Calf scheme was one of the few programmes which could meet this regulation could be met; as far as farmers and traders were concerned, it was even the only one.

To prevent the risk of veterinary drug residues in veal, a 'List of Approved Veterinary Drugs for Veal Calves' was drawn up. IKB veal calves may be given no drugs other than those specified in this list. After one of the listed drugs has been administered to a sick animal, the animal concerned may not be supplied to a slaughterhouse for a specific length of time. The waiting times specified in the list are on the whole longer than those statutorily prescribed. As from 1 July 2000, all IKB veal calves must be transported by a trader or transport company accredited under the Quality Scheme for Livestock Trade or Livestock Transport. This scheme obliges the traders and transport companies to adhere to specific welfare regulations and to take measures aimed at preventing animal diseases.

There are two separate PVE/IKB Meat Quality Marks for veal (see below), one for white veal and one for pink veal.

The IKB Cattle scheme

The most important element of the IKB Cattle scheme is the strict inspection for the absence of growth stimulants. Inspectors of the independent Kwaliteits Controle Runderen (Cattle Quality Inspection Service) conduct inspections without prior notification at IKB-accredited cattle farms. The animals are thoroughly examined and urine samples are taken if deemed necessary.

The IKB Cattle scheme enables livestock farmers, traders and slaughterhouses to comply with the EU guideline relating to self-administered inspections. Since 1 January 2000 European legislation obliges these links to perform inspections for the presence of certain banned substances. At the start of 2000 IKB Cattle was the most important programme in the cattle sector which could meet this regulation ; as far as farmers and traders were concerned, it was even the only one.

To avoid the risk of veterinary drug residues in beef, cattle farmers are obliged to adhere to strict waiting times after administering veterinary drugs to sick animals. Farmers must keep the animals in question at their farms for a prescribed number of days before supplying them to a slaughterhouse.

As from 1 July 2000 IKB cattle must be transported by a trader or transport company accredited under the Quality Scheme for Livestock Trade or Livestock Transport. This

scheme obliges the traders and transport companies to adhere to specific welfare regulations and to take measures aimed at preventing animal diseases.

The IKB Egg, IKB Chicken and IKB Turkey schemes

Some of the requirements of the various IKB schemes for the poultry sector are the same; they will be dealt with initially. After that, various specific IKB regulations will be described separately per scheme.

The poultry sector goes to a lot of effort to prevent and control the bacteria Salmonella and Campylobacter in poultry meat and Salmonella enteritidis and S.typhimurium (S.e. and S.t.) in eggs. Action plans have been formulated, which oblige every link in the poultry chain to comply with stringent hygiene requirements.

All farms and companies handling poultry (meat) and eggs must perform tests to see whether animals or products are infected with the aforementioned bacteria. If any of the bacteria are detected, they must be controlled with specific measures, depending on the type of farm or company concerned. Usually this will mean the farm or company will have to take extra hygiene measures and precautions aimed at preventing cross-infection. Sometimes the infected batches will have to be taken out of production or vaccinated. The action plans are integral parts of the IKB poultry schemes. In addition producers of compound feed incidentally also take extra hygiene measures.

All IKB-accredited poultry farmers must keep records of any drugs administered to their animals, and the times at which they are administered. They, too, must of course adhere strictly to the specified waiting times to prevent the risk of veterinary drug residues in the meat.

As from the summer of 2000, poultry service companies that adhere to certain strict procedures, for example in the fields of hygiene and the training of their employees, can also be accredited. This option may be included in the IKB system in the future.

Eggs

As points of assembly, egg packing stations constitute an important link in the implementation of the IKB Egg scheme. The packing stations inspect the eggs for cracks or other signs of damage and dirt on the shells. The results are fed back to the poultry farmers, who can use this information to adjust their farm practices if necessary. The packing stations also measure the eggs' freshness. It goes without saying that consumers want their eggs to be as fresh as possible.

There are separate PVE/IKB Egg Quality Marks for free-range, perchery and battery-cage eggs. The free-range and perchery systems include more animal-friendly elements than the IKB system for standard eggs. Hens kept at free-range and perchery farms for example enjoy a greater range of movement.

Chicken and Turkey

The slaughterhouses assess the quality of the broilers. Their assessments yield information that is of use to both the broiler farmers and the slaughterhouses themselves. The broiler farmers receive useful feedback on the quality of their animals, enabling them to take any corrective measures required before subsequent deliveries. And the slaughterhouses can use the information to determine the most suitable slaughtering and processing methods and/or the meat's destination.

Familiarity and image

Until recently, only pork was sold to consumers under the PVE/IKB Meat Quality Mark. Since early 2000, however, IKB eggs are also recognisable as such in shops.

There was at first little interest in IKB beef among retail traders because the number of

participants in this scheme was too small to be able to guarantee the availability of sufficient IKB beef, and retail traders who have agreed to sell IKB meat may sell no other meat. But this situation has changed since the tremendous increase in the number of participants at the end of 1999.

The greater part of all Dutch veal, which is almost all IKB meat, is exported. As a result, other countries are now familiar with the IKB concept, too.

Whether chicken, which is almost all IKB meat, too, will be sold under the Meat Quality Mark is still under discussion. So far, the large poultry producers prefer to sell their meat under their own brands.

Consumer surveys have shown that the IKB quality mark has a good image. The advertisements for IKB pork have had the desired effect. The campaign for IKB eggs will benefit from this and will in turn provide a fresh impulse itself.

Similar campaigns will in the future probably be organised for chicken and beef, too.

International comparison

The principle of chain guarantees has gradually caught on in countries outside the Netherlands, too. But how the principle is worked out and implemented elsewhere varies substantially from one country to another. The Netherlands still has a leading position. This is most clearly evident as far as IKB pork is concerned.

In 1999 the independent German Euro Handelsinstituut (EHI, European Trade Institute) for the second year in a row proclaimed the Dutch IKB Pig Quality Programme the best in Europe. The Dutch system scored high in every assessed aspect and was granted 38 out of a total of 39 points, i.e. 97% of the highest possible score. Whereas in 1998 only four countries had been considered in the comparison, a year later the quality programmes of six countries (Germany, France, the Netherlands, Ireland, Denmark, Austria) were assessed in terms of their system's organisation and scope.

In order to be able to compare the systems as objectively as possible, the EHI developed a checklist of all the relevant elements of quality-guarantee systems, divided into five categories: Identification and Registration (tracking and tracing) of the animals and the derived products, independent inspections, sanctioning in cases of non-compliance, the extent to which the system covers the overall production chain and the exchange of information between the participating links. The IKB Pig scheme scored the highest possible number of points in four of these five categories.

The IKB Veal Calf scheme incidentally came second in its category and the IKB Cattle scheme third.

What next?

IKB is a flexible, market-oriented system. How it will develop in the long term will depend on developments in the market. The system aims to respond to the market's (future) demand and requirements. It is the representatives of the sectors themselves who ultimately decide whether particular issues will be included in the schemes. The IKB schemes are incidentally basic schemes; farmers and companies are free to decide whether they prefer to tackle an issue individually or collectively.

HACCP

In the near future, an extra obligation for slaughterhouses will be included in the IKB schemes for the pig, cattle and veal calf sectors. The slaughterhouses will be obliged to adhere to the principles of the HACCP method. This will mean they will have to comply with general hygiene requirements, but they will above all also have to identify all the critical food safety

points at their premises. And they will have to be able to prove that they control these points as required. This extra IKB requirement will be included at the request of the Dutch slaughterhouses' trade association.

New options and regulations

Since the spring of 2000, poultry service companies can be IKB-accredited, too. This has not yet been included as an obligation in the IKB poultry schemes. A study is currently being carried out to see whether conditions will have to be imposed with respect to livestock traders and transport companies. Such conditions have in the meantime been imposed with respect to the red-meat sector.

Further requirements

As far as the IKB Chicken scheme is concerned, the possibility of introducing further requirements with respect to the animals' welfare is currently being considered. Work has meanwhile started on the formulation of a requirement concerning monitoring for the presence of critical substances such as antibiotics.

A heavily debated issue concerning the IKB Egg scheme is the severity of the quality requirements; it has for example been suggested to impose stricter requirements with respect to the composition of the animals' feed and to improve the eggs' traceability. These options are being discussed with the retail traders' trade association.

Food safety

The various IKB criteria employed throughout the chain guarantee a safer end product. But just how watertight that guarantee is, is a different matter. Highly instructive in this context was the Belgian dioxin affair of 1999. The source of the problem was the first link: the feed. It was soon found that no Dutch products were contaminated. But this example made it painfully clear that we would not have been able to prevent a similar problem in the Netherlands, either.

The affair triggered initiatives aimed at improving the guarantees. Brussels, the Dutch government and the sectors concerned are now studying the options. Everyone's eyes have been opened to the vital importance of ensuring that feed meets stringent quality requirements, whether they be GMP or other requirements. And if it had not been fully realised before, there is now no escaping the fact that every single link in the chain is partially responsible for the quality of the chain's end product.

The incident, finally, also demonstrated the great benefit of the IKB programme. Without IKB, it would never have been possible to trace the products' origins with the same degree of efficiency.

From what has been said above it will be clear that the IKB system has now grown to maturity. The participation percentages are excellent, numerous aspects of quality are now guaranteed in the individual links and several objectives have been realised. IKB products offer more guarantees and hence extra quality assurance. As a result, since its introduction IKB has developed a very good image.

This not to say that the system is now 'completed'. Indeed, one of its characteristics is that it can, and will, be continuously enhanced and extended, so its development will continue. But the experiences gained with the system so far show that it is definitely a success.