

# Quality management – from West to East

“Made in Germany” – soon to be a “must have” in China too

Animal health and food safety were two central themes addressed by a German-Chinese symposium in Chengdu in the Chinese province Sichuan at the beginning of February. There has been a close partnership between Sichuan and the German state of North Rhine-Westphalia (NRW) for more than 20 years now.

By **Brigitte Petersen**  
and **Martin Hamer**

**M**any high-ranking officials and scientists, including some from the agricultural elite university in Ya'an, studied in Germany or are former scholarship holders of NRW. In order to intensify German-Chinese relations in the agricultural and food sector further, a delegation of German experts and business-persons at the international workshop was given an opportunity to tour selected farms and plants in the environs – from livestock breeding through to processing and trade. The members of the German delegation were shown not only “model” establishments such as the New Hope Company in Chengdu, a meat processing plant working with modern German machinery and equipment. They also saw small-structured companies in the province of Sichuan that had been rebuilt again after the great earthquake in May 2008. The networking between science, business and administration

that is strongly promoted by the EU is part of China's “Go west” strategy and is already demonstrated, at least in the export-oriented firms visited.

## Food safety standards have been implemented

During the trip by the delegation, it became clear that Chinese experts have used their knowledge in recent years to establish standards in the fields of food safety and animal epidemic prevention. However, extremes still clash with each other in China as regards animal husbandry, transport and slaughtering, as well as in the fields of meat product processing and hygiene standards. Yet China is working at record speed to change matters. “Made in Germany” is still considered by Chinese experts to be a quality concept for testing methods, traceability and certification.

The Chinese partners were interested not only in meeting representatives from trading companies such as Metro, but also and in particular in the ex-



Packaging ready sterilised sausages at New Hope Company, Chengdu

pertise provided by GIOS e.V. and the Department of Preventive Health Management of the University of Bonn. Here the focus was on expertise along the entire value chain. For instance new test instruments have been developed, and international sector projects initiated and coordinated.

In particular the very fast and consistent implementation of the “global gap”, a certification procedure introduced in Asia by the Metro Group that allows uninterrupted traceability of meat products from the counter right back to primary production, is remarkable. Metro was also able to gain the contract as supplier for the Olympic Games on the grounds of the standards in refrigeration, packaging, transport and storage, and will also be supplying the EXPO World Exposition in Shanghai this year.

The delegation met Prof. Dr. Wang Wei, a former German scholarship holder and Director of the Reference Laboratory for Meat Research of the Province of Sichuan in China, as well as being Director of the Institute for Meat Research of the University of Chengdu. He is a driving force behind the “Go west” strategy. The delegation discussed points of difference and

points in common between both countries with him and other experts from the branch.

One essential difference between the EU and China consists in the respective surveillance structures. Whereas in Germany the executing authorities are largely integrated and responsible at interdisciplinary level for monitoring food safety in line with the “from stable to table approach”, the surveillance structure in PR China is organised along strict sectoral lines. Generally, the implementing line of the Chinese Ministry of Agriculture is responsible for the feed segment; that of the Ministry of Trade is responsible for slaughterhouse supervision, food retail trade supervision and markets. The Ministry of Quality and Hygiene Controls is responsible for the areas of large canteen kitchens and the Chinese province Sichuan wholesale trade, while the Ministry of Hygiene is the supreme national authority for the field of restaurants and similar establishments.

## A look behind the scenes – pig breeding farms

The district of Dazhu is located in the east of the province of Sichuan, about four hours by



### Stunner KR/KS

- Most powerful powder activated bolt stunner available.
- Reduces kicking movements of the animal after stunning significantly. Easier shackling.
- Robust design for rough working conditions.
- Effective safety-device for trigger. Safe, no unintentional firing.
- Automatic bolt-retraction-system (type RS). No sticking of bolt in animal's head.
- Easy handling.
- Low costs for maintenance and for wear and tear.
- Low cost, high-power cartridges (cal. 6.8x15).
- Testing unit STUNTEST available.



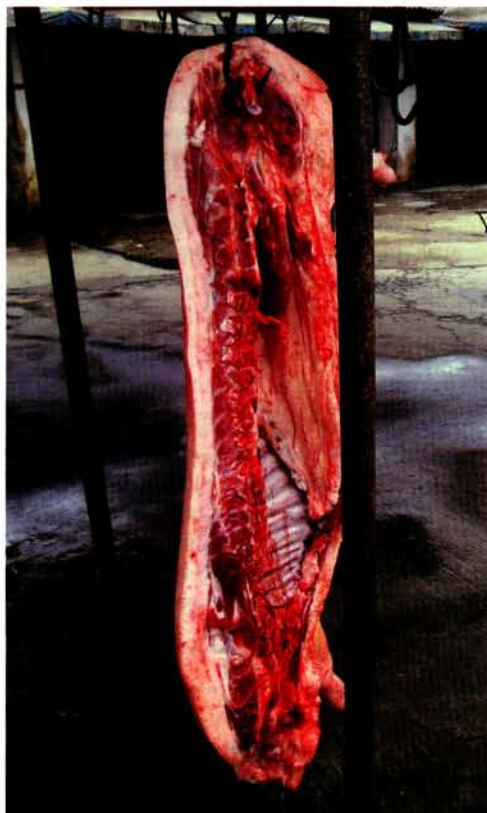
Gegründet 1896

**SCHERMER**

**KARL SCHERMER**  
GmbH & Co. KG

Einsteinstraße 51  
D-76275 Ettlingen  
P.O. Box 100802  
D-76202 Ettlingen  
Phone 0049-72435807-0  
Fax 0049-724330472  
karl-schermer@t-online.de  
[www.karl-schermer.de](http://www.karl-schermer.de)  
[www.karl-schermer.com](http://www.karl-schermer.com)

Visit us at the IFFA, Frankfurt, Hall 9.0, Stand E69



Side of pork in the inner courtyard of a small slaughterhouse in Chengdu

car from Chengdu. There 1.014 million pigs, 40,000 cattle (mainly water buffalo) and 20 million heads of poultry are kept on 2,300 farms.

The deputy official veterinarian is responsible for the areas of quality assurance, food safety and animal breeding, as well as for issuing expert opinions in the case of animal epidemics as far as the state pays financial compensation for resulting animal losses. In so far the compensation system differs from the German concept for animal epidemics, as no animal epidemic funds are established in the PR China.

The pig breeding farms surveyed were all integrated large-scale operations with connected fattening facilities. As a result of the climate, the animals are kept in freely ventilated housing with a great deal of daylight (open windows). Both the farms visited have a veterinarian as a regular member of staff. The animal medicaments used correspond to the range customary in Germany. However, animals are vaccinated against various

epidemics such as e.g. swine fever.

Generally, animal medicaments may only be issued in the PR China by (practicing) veterinarians with a special licence. Sales of animal medicaments via official centres (e.g. Veterinarian Office) are not admissible. Human medicaments are generally not admitted for the field of productive livestock. In so far the situation in the PR China is comparable with that in Germany. Animals that die on the farm are disposed of by large pig farming operations in their own facilities.

Slurry is frequently converted in a biogas system after drying. As regards the use of animal by-products for feeds (in particular meat-and-bone meal), there is a national ban in China on using cattle proteins. Following corresponding preliminary treatment, proteins of other animal species can, however, be used. However no by-products of animal origin may be fed to cattle.

#### Setting a good example

The New Hope Company in Chengdu was established in 1993 and is today one of the leading producers of meat products in Southern China. In recent years this company has erected a number of modern production lines, all with machinery and equipment of German manufacture. The range comprises beef and pork products that are sold both as preserves and for the cooling chain. In particular the ham sausage "Schinkenwurst" preserves treated at high temperature are very popular among consumers in Sichuan on the grounds of



Preparation of the emulsion in the sausage cutter at New Hope

their typical flavour and quality. While building up the company, the managerial staff gained an insight into the rules set out in ISO Norms 9000 and 14001 and used this to design their quality and environmental management systems along West European lines. An HACCP con-

cept is established and is monitored regularly. The plant receives technical support from Prof. Wang Wei and operates in accordance with European standards.

The processing capacity of the Sichuan Gaojin Food Stock Co. Ltd., another surveyed compa-



## HAVE YOU EVER SEEN MORE MOUTHWATERING LOGO?

Premium (organic) spice blends, innovative (organic) additives and unique recipe creations will get your taste buds tingling.

Gewürzmühle Nesse GmbH • [www.nesse.de](http://www.nesse.de) • FRUTAROM

ny, is the third largest in China. This makes the company one of the leading processing operations for pork in the province of Sichuan and at the same time one of the leading exporters. The company supplies European countries too.

The group of companies integrates the entire production and manufacturing chain, starting from piglet production, extending through slaughtering, dressing and cooling, right up to the finished meat products. Here the “stable to table approach” is reflected particularly clearly. One very ambitious product is traceability right down to meat piece level with the help of the latest in transponder technology. The company tops the league in pig slaughtering. In 2004 this establishment was China’s largest exporter of frozen pork.

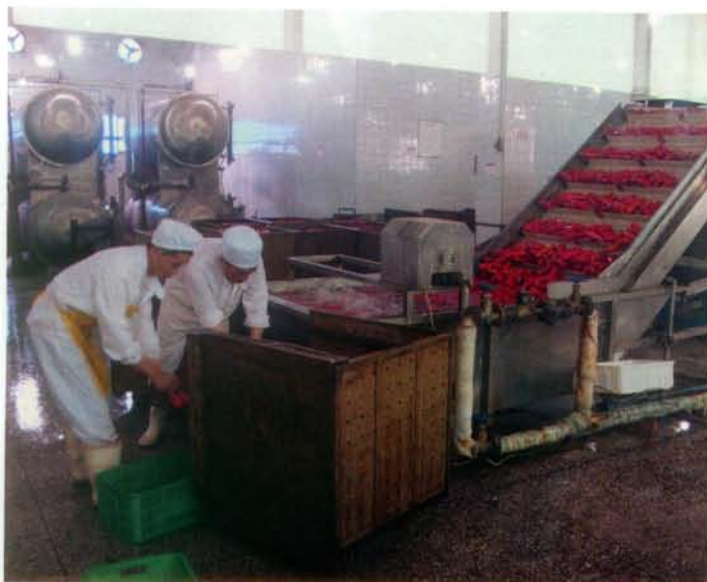
In 2009 more than eight million pigs were slaughtered there, and over 50,000 t frozen pork and pork products were exported. The forecast for the year 2010 assumes a slaughtering capacity of ten million pigs that will be supplied by 200,000 rearing farms. The share of exports alone is then expected to increase to 150,000 t. The Gaojin Company is made up of 20 sub-enterprises with a capital stock of about €100 million. The company employs a workforce of al-



Different nutrition habits within different cultures

together about 10,000, including 1,500 staff with academic backgrounds.

China’s foreign trade expanded substantially when the country joined the WTO Agreement in 2001. The phase of exchanging know-how and (machine) technology has been increasingly superseded by a phase of bilateral trade in products from the agricultural and food industry. European meat products are gaining an ever firmer foothold in the Chinese market.



The sausages come from the sterilisation unit and are passed on to the packing station, New Hope.

### Markets of the future

In particular cooked sausage, sausage made from cooked meat and cooked cured products are becoming ever more popular. The Chinese meat industry is definitely a growth market. According to official Chinese forecasts, an increase in bilateral trade between China and the EU can be expected. The growth of domestic consumption is leading to greater demand for meat imports. Forecasts

assume an annual net import demand of 670,000 t in the years 2017/2018. China will probably change from a net exporter to an importer, above all in the pork segment. However, a distinct increase in import demand is to be expected for poultrymeat too.

The strong economic growth goes hand in hand with a change in eating habits of the Chinese population. Whereas per capita meat consumption in 1950 was still 4 kg, the 50 kg per capita level was exceeded for the first time in 2002. Meat consumption is dominated by pork, accounting for 46.9% of per capita consumption. It is followed by poultry meat (15.6%), beef (6.9%) and lamb (3.9%). Parallel with the rise in meat and meat product consumption, an enormous upward development in the meat production segment has taken place in China. In 2008 China produced 72,787 million tons of meat, corresponding to a share of 30% of total global meat production. However, demand cannot be covered by Chinese domestic production in the medium term. Although the Chinese are investing in establishing high “Made in Germany” quality standards, such standards can still not be guaranteed to the cer-

tainly critical consumers, who have had to suffer a few food scandals in the past. That is why there are good marketing prospects for German meat products and for higher-grade pieces, as well as for by-products such as tongue, liver, pig ears, snouts and trotters. At least at present, consumption and eating habits of Chinese consumers still differ from those of European consumers.

#### Authors’ addresses

Prof. Dr. Brigitte Petersen, Rheinische Friedrich-Wilhelms-Universität Bonn, Regina-Pacis-Weg 3, 53113 Bonn, Germany; Dr. Martin Hamer, Grenzüberschreitende Integrierte Qualitätssicherung (GIQS) e.V., Emmericher Str. 24, 47533 Kleve, Germany

Prof. Dr. Brigitte Petersen heads the Division of Preventive Health Management at the University of Bonn that addresses animal epidemic prevention, feed quality assurance and food safety, and animal health and protection. She is also chairperson of the research platform GIQS e.V. Her work includes coordinating and initiating projects such as FIN-Q.NRW (For-



schungsnetzwerk Innovation durch Qualitätskommunikation – Research Network Innovation through Quality Communication)

Dr. Martin Hamer is General Manager of GIQS e.V. This cross-border research platform was created in 2001 at the initiative of the Universities of Bonn (NRW) and Wageningen (NL) to promote and initiate international sector projects in the agricultural and food segment.

