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NEWS FROM THE FOOD TEAM IN TRADE COUNCIL CHINA - JUNE 2014

5th Denmark - China Round Table Conference on Pig Production

20 June 2014 - Eigteds Pakhus, Copenhagen, Denmark

China: News from the Food Team - Export Figures - Upcoming Events - News Flash
**THE FOOD TEAM IN TRADE COUNCIL CHINA**

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CHINESE VICE MINISTER FOR AGRICULTURE MEETS DAN JØRGENSEN IN DENMARK

On 23 June 2014 Minister for Food, Agriculture and Fisheries, Mr. Dan Jørgensen hosted a bilateral meeting with Chinese Vice Minister Mr. Chen Xiaohua.

MoA vice minister delegation attended the bilateral meeting with FVM in the morning on 23 June at the Ministry of Food, Agriculture and Fisheries.

The Minister Mr. Dan Jørgensen hosted the meeting, and both sides exchanged knowledge within the cooperation areas of preparation process for establishing Sino-Danish Pig Model Farm, arranging symposium on organic farming and possible cooperation of food safety and quality.

Further discussion of sustainable and efficient development of agriculture and food production was carried out during the lunch later on.

Vice Minister Mr. Chen Xiaohua of MoA and the rest of the delegation expressed their appreciation of the 3-days visit in Denmark, and also showed their strong willingness to strengthen further cooperation with Denmark within above-mentioned areas.

3 parallel Chinese delegations to Denmark

From 19-23 June three Chinese delegations visited all parts of Denmark. The visits were facilitated by the Danish Embassy in Beijing with participation of many Danish exporting companies.

1. Delegation of the Ministry of Agriculture Vice Minister Mr. Chen Xiaohua

2. Delegation of Chinese Ministry of Agriculture veterinary working group

3. A Chinese business delegation related to pig production
MOA VICE MINISTER DELEGATION VISITS ARLA

On June 21, the MoA Vice Minister delegation visited Arla's headquarters in Viby followed by a visit to an organic farm in Nørre Snede.

In order to strengthen the knowledge on working as a cooperative in Denmark, the MoA vice minister delegation paid Arla a visit on Saturday, June 21.

The visit was kicked off at Arla's headquarters in Viby where the delegation was introduced to Arla's strategy, both globally and in the Chinese market, as well as what it implies to work as a cooperative and what quality systems that are put into use in order to secure consistently high levels of quality and safety.

These measures were later exemplified at organic farmer Uffe Bie's farm close to Nørre Snede. Here the delegation was not only introduced to the herd of more than 200 cows but also organic farming practices in the dairy sector, and the Arlagaarden quality system.
MoA sent out a veterinary working group consisting of 6 officials to attend the 1st veterinary meeting at the Danish Veterinary and Food Administration in Denmark.

Based on the MoU on veterinary cooperation between Ministry of Agriculture of China (MoA) and the Danish Ministry of Food, Agriculture and Fisheries (FVM), which was signed in November 2013, both sides agreed to strengthen the cooperation in the veterinary.

The Deputy Director General Mr. Huang Weizhong from Veterinary Bureau of MoA headed the delegation. Executive Director General Mr. Esben E. Rasmussen and Chief Veterinary Officer Mr. Per Henrik sen both presented at the meeting.

Even though the time schedule of the meeting was very intensive, both Chinese and Danish sides presented an overview of animal health and control systems from each side, and several relevant topics were being further discussed, massive information covered from organization, legislation, animal diseases and laboratories to slaughtering, meat inspection, veterinary drug and residue monitoring plan were also shared during the meeting.

In addition, both sides agreed to conduct the veterinary working group meeting annually and focal points from each side are going to be confirmed to ensure the next step cooperation.

Right after landing in Copenhagen airport, Danish Crown slaughterhouse in Ringsted was the first stop of MoA veterinary working group’s visit in Denmark.

Besides the visit to slaughterhouse and the 1st veterinary working group meeting, the delegation also attended the 5th China-Denmark Pig Production Roundtable and paid on-site visits to a number of pig production industries, pig farms and educational institute together with the business delegation during 19-22 June.
As part of the Chinese veterinary working group visit to Denmark, it was introduced to Danish companies in the field. First thing on the agenda was a visit to a Danish Crown slaughterhouse.

Shortly after the MoA veterinarian working group’s arrival in Copenhagen, the delegation transferred to Ringsted in order to visit one of Danish Crown slaughterhouse facilities.

The Ringsted establishment slaughters approximately 11,000 pigs each day, employs 920 people and oversees slaughtering, cutting and final processing and packaging.

The group was first introduced to Danish Crown from a corporate angle, including trade figures and organizational structure. The presence of the associated veterinarians also ensured an introduction to the facility that exemplified the facility’s veterinarian cooperation between Danish Crown and the Danish Veterinary and Food Administration.

Finally, the delegation was escorted through the slaughterhouse going the opposite direction of the production flow. The visit was thus first introduced to the final packaging and processing processes of the pork meat, went on to the cutting, sorting and grading of the meat and was terminated seeing the actual slaughtering of the pigs. The visit was arranged in cooperation with the Danish Agriculture and Food Council.
A business delegation consisting of 10 representatives from leading Chinese enterprises within pig production headed Denmark and paid a fruitful visit in late June 2014.

The delegation landed in Copenhagen on 19 June, and visited the headquarter of Egebjerg International A/S in Egebjerg. Representatives from Egebjerg International, GreenMaq, Munters and Fog Argo presented the companies and their products to the delegation.

The delegates also visited the showroom center for Egebjerg feeding system and penning system and shared knowledge within relevant topics, e.g. innovation and development of feeding and penning system, slurry treatment equipment and system, ventilation and control system and etc.

The business delegation visited the headquarter of Skiold A/S in Sæby, which is the top leading feeding system and agriculture machinery producer in Denmark on 21 June.
NEWS FROM THE FOOD TEAM

continued...

A typical family owned pig farm Nørregaard, which has very close cooperation with Skiold in Suldrup warmly received the business delegation and showed their newly constructed pig farm which will be in operation soon.

The visit was arranged in cooperation with DanBred International, Danyu Trading Limited and Skiold.

On 22 June the delegation visited one of the biggest agriculture colleges in Denmark, Dalum Agricultural College in Odense. During the weekend on-site visit, the business delegation got a more clear impression of the status of pig production in Denmark, and also shared massive information and knowledge with their Danish colleagues in the topics they are interested in.
On Friday, June 20, the 5th China-Denmark Pig Production Round Table was held in Copenhagen.

Various topics, which covered the entire pig production supply chain, e.g. genetics and breeding, quality and innovation of the feed, animal health and disease control, design and establishment of pig farm, veterinary training program, were discussed during the meeting.

The conference was opened by Minister for Food Agriculture and Fisheries, Dan Jørgensen, and Vice Minister for Ministry of Agriculture, Chen Xiaohua who both stressed the importance of the continuous bilateral exchanges in the field of pig production and the fruitful relationship between Denmark and China.

From official side Danish Veterinary and Food Administration, Danish AgriFish Agency as well as Chinese Ministry of Agriculture and Sun Yat-Sen’s School of Life Sciences counted among the speech contributors.

Company presentations were also many and diverse covering stable systems from SKIOLD and Egebjerg International, feed ingredients from Chr. Hansen, breeding technology from DanYu, Egebjerg, and introduction to Danish Farm Concept including Danish education and management systems.
CHINESE MOA'S INSPECTION VISIT ON SURVEILLANCE AND RISK ANALYSIS FOR SCHMALLENBERG VIRUS

On Friday, June 20, the 5th China-Denmark Pig Production Round Table was held in Copenhagen.

As part of Chinese Ministry of Agriculture’s study assignment on EU surveillance and risk analysis for Schmallenberg virus, a four-people official delegation was commissioned by the Chinese MoA to carry out an inspection visit to Denmark from 4 to 10 June 2014 in order to evaluate the risk of exporting bovine genetic material (bovine semen) from Denmark into China after the ban on direct and indirect imports of bovine genetic material from EU countries affected by the Schmallenberg virus in April 2012.

The Chinese MoA’s inspection visit to Denmark was coordinated by the Trade Council, Royal Danish Embassy in Beijing. A commercial officer was sent by the Trade Council to accompany the Chinese MoA delegation throughout the visit. The visit started off with an opening meeting between Chinese MoA delegation and Danish Veterinary and Food Administration (DVFA) on 5 June.

DVFA’s Deputy Head of Animal Health Division, Stig Møllergaard, introduced the Chinese MoA delegation to animal health status in Denmark, surveillance disease control system in Denmark, traceability system in cattle production and an update on Schmallenberg virus status in Denmark and EU.
Later on, DVFA’s Veterinary Officer, Annette Junker Karpinski presented legislation and authorization of collection centres in Denmark to Chinese MoA delegation.

Chinese MoA delegation paid a visit to VikingGenetics bovine semen collection centre in Assentoft Jutland on 6 June. VikingGenetics’ Export Manager, Hans Christian Hansen, made an introduction of the company and its highly effective breeding programme focusing on health, reproduction, functional traits, yield and functional conformation.

Following Hans Christian Hansen’s presentation, VikingGenetics’ Head of Veterinary Department, Kaj Abrahamsen, briefed the Chinese delegation on the housing facility for production for China with protection against vector attack, their surveillance programme and test program for production for China.

On 7 June, the Chinese MoA delegation visited a dairy cattle Jersey farm owned by Jens Erik Therkildsen and a dairy cattle Holstein farm owned by Claus Fenger.

On the final day of the tour, National Veterinary Institute DTU introduced Chinese MoA delegation to the risk-based surveillance of vectors and vector-borne pathogens while the delegation was shown around the national reference laboratory at DTU.

At the closing meeting between the Chinese MoA delegation and DVFA on 10 June, the Chinese inspectors informed DVFA that the preliminary evaluation of the entire inspection visit is very positive and a report on the inspection visit would be drawn up by the delegation and submitted to MoA.
AQSIQ INSPECTION OF FROZEN MACKEREL AND FRESH SALMON IN FAROE ISLANDS

From 24-27 June 2014, AQSIQ conducted an inspection visit to Faroe Islands on frozen mackerel and fresh salmon.

Faroe Islands is a very large exporter of fresh salmon. In order to check the aquaculture system in Faroe Islands, AQSIQ decided to conduct an inspection visit to the islands.

In order for Faroe Islands to export frozen mackerel to China, a complete risk assessment analysis has to be conducted by AQSIQ. Therefore, the delegation inspected the control system of mackerel in Faroe Islands.

In total four inspectors took part in the delegation. Mr Lin Wei, deputy director general of import and export food safety bureau of AQSIQ was the head of the delegation; Madam Mo Weiyuan, deputy director general of Guangxi CIQ, Mr Lin Yu, deputy division director of Fujian CIQ and Mr Yang Binbin, deputy division director of import and export food safety bureau of AQSIQ.

During the visit to Faroe Islands, AQSIQ visited one salmon aquaculture farm, one salmon processing factory, one mackerel processing vessel, the national reference laboratory and subsequently had in depth discussions with the Faroe food authority.

The overall feedback from AQSIQ on the inspection was quite satisfying. AQSIQ proposed a follow-up plan and discussed how both sides can cooperate in the future as a result of both sides interests in fresh salmon trade. Closer cooperation will make it easier to have customer clearance despite the fact that it is required to run tests on every batch of the product. The Danish Embassy in Beijing facilitated this visit and provided assistance when needed during the visit.
'FROM FARM TO FORK - AND CHOPSTICKS'
DANISH FOOD SAFETY DELEGATION TO CHINA

Every third week in June is the National Food Safety Awareness Week in China. This year is the sixth consecutive year that China promotes understanding and consciousness regarding food safety at national and provincial/municipal level.

With support from Central Denmark Region and Invest in Denmark, Innovation Centre Denmark had the pleasure of welcoming a Danish delegation in food safety visiting Shanghai from June 17 to 19. The participants are from a variety of background, University of Copenhagen, Technical University of Denmark, Danish Agriculture & Food Council, Knowledge Centre for Agriculture, Danish Technological Institute, Danish Meat Research Institute, Bygholm Agricultural College, Dianova A/S, Lyngsoe Systems A/S and Mille Baby A/S. But they all have the same interest to explore further development of their research, technologies, and business models in China within the food sector.

It is well known to us that food quality and safety is high on the agenda in China. Nevertheless it remains as one of China’s major social concerns. The purpose of hosting the delegation is to initiate Sino-Danish research and technology collaboration and provide a unique platform to showcase Danish strongholds within this area.

In the three day programme, the delegation has built a deeper and comprehensive understanding of issues regarding the Chinese demand in food safety areas by expert presentations and round table discussion with guest speakers, including professor from Fudan University School of Public Health, food safety and...
risk communication expert and scholar from University of Tübingen, Germany, former Shanghai Municipal Food and Drug Administration official and food testing company Eurofins. These handpicked China-experienced speakers presented their thoughts on the challenges and business opportunities in food sector in China and shared experience with Danish participants from different angles.

One the second day June 18, the delegation had the pleasure visiting Carrefour foods safety inspection centre located in one of the Carrefour flagship stores in Shanghai in the morning and a local slaughterhouse in Feng Xian area under AIC Pork Foodstuff Co., Ltd, a subsidiary company of the Bright Food Group in Shanghai. The site visits give the delegation a unique chance to interact with Chinese stakeholders and physically experience the business environment in China.

The programme ended with a full day Sino-Danish Seminar on Food Safety at Bor S. Luh Food Safety Research Center in Shanghai Jiao Tong University. Prior to the delegation, Knowledge Centre for Agriculture and Bor S. Luh Food Safety Research Center have applied for a joint international collaboration funding from Shanghai Municipal Science and Technology Commission, built around pork traceability and detection techniques and quality control system.

The two parties have signed a Memorandum of Understanding in May this year to further cooperate through joint research and training program in the field of traceability, microbial safety, quality control and risk surveillance and assessment.

The Sino-Danish Seminar on Food Safety on June 19 kicked off the collaboration between Central Denmark Region and Shanghai under the framework of the Memorandum of Understanding. The seminar has also invited external participants from Shanghai Municipal Food and Drug Administration, leading Chinese universities in food science and technology and Chinese companies devoted to food safety, traceability and quality assurance as guest speakers.

After the seminar, the Danish delegation was given a guided tour to the laboratory facilities at Bor S. Luh Food Safety Research Center and had further discussions with Shanghai Jiao Tong University regarding future collaboration action plans.

A follow up meeting is planned with the delegation in Denmark in coming fall.
DANISH AGRICULTURE AND FOOD EXPORT TO CHINA

The Danish export of food and agriculture to China reached 14,53 billion DKK in the one year period from April 2013 to March 2014. The export of fur and skin in March 2014 (0,87 billion DKK) was much lower than the export in March 2013 (1,78 billion DKK). This affect the total export numbers significantly. Though all export areas have increased but especially two areas have experienced a spectacular increase: export of live animals are up 1.453% compared to the previous year and dairy and eggs are up 117%.

The total Danish export of goods from April 2013 to March 2014 reached 29,99 billion DKK, which is a growth of 4% compared to the previous year period. The agricultural and food export accounted for 48,4% of the total export from Denmark to China (April 2013 to March 2014).

A closer look at the numbers
By far, the largest export within food and agriculture is fur and skin, which take up 66% of the total export. Meat products, which have steadily increased during the last years continue to grow and are up 10% compared to the previous year.

Live animals still count for a very insignificant part of the total export but the area is in an impressive growth together with grains and feed. Grains and feed counts for 4% of the total compared to 3% in the previous year.

As a percentage of the total export; agricultural machinery (1%), dairy and eggs (2%) and aquatic products (6%) remain closely unchanged compared to the previous year.

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### Export figures
All numbers in million DKK. Total export to China (Source: Statistics Denmark).

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<td>Fur and skin</td>
<td>9,535,107</td>
<td>11,816,780</td>
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<tr>
<td>Meat products</td>
<td>2,139,789</td>
<td>1,943,752</td>
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<tr>
<td>Aquatic products</td>
<td>910,680</td>
<td>914,246</td>
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<td>Grains and feed</td>
<td>624,319</td>
<td>464,568</td>
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<td>108,671</td>
<td>63,280</td>
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<tr>
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<td>143,103</td>
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<td><strong>Total</strong></td>
<td><strong>14,528,728</strong></td>
<td><strong>15,787,748</strong></td>
<td><strong>-8%</strong></td>
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</table>
CHINESE FOOD INFLATION

The declining development in the consumer price index, which we have seen since October 2013, seems to change in March 2014 thought the recent numbers indicate that the index continues to decline as of April 2014. The consumer price index reached 2,5% in May 2014, which is up compared to May 2013. The food price index reached 4,1% in May compared to 2,3% in April.

Compared to the previous year the consumer price index is at a relatively lower level: 2,5% in May 2014 compared to 2,1% in May 2013. The food price index has been in a challenging year with high peaks in June/July 2013 and October 2013, and seems to be reach another peak within the next months.

Last 3 months average
During the last three months beef, mutton and fruits have increased year on year with 8,3%, 6,7% and 19,5%. Besides grease, pork and vegetables, all areas have seen a 3 months average growth in a more moderate pace. Pork decreased in May 2014 with 0,6% whereas the 3 months average ended at a decrease of 4,4%. Fruits have during the last three months seen a massive increase as in May alone up 20%. Milk and dairy product increased with 10,3% in May 2014 alone, decreasing the 3 months average to 10,9%.

China food inflation - 3 months average
From March 2014 to May 2014 by category. Values in Y/Y (%). (Source: China National Bureau of Statistics)
China was one of the countries honoured this week by the United Nations’ Food and Agriculture Organisation for having halved the proportion of its hungry citizens since 1990.

This achievement sees China joining a growing group of countries to have reached international targets ahead of an end-of-2015 deadline. At a ceremony at FAO headquarters in Rome, the FAO’s director-general, José Graziano da Silva, awarded diplomas to China for obtaining the Millennium Development Goal 1 (MDG1).

The MDG1 hunger target requires countries to halve the proportion of hungry people in the population before the end of 2015 compared to the level in 1990. A more ambitious World Food Summit goal requires countries to at least halve the number of hungry people in the population before the end of 2015 compared to the level in 1990.

Eradication of hunger
"One year ago we celebrated the first 38 countries that had achieved the MDG target, three years in advance of the 2015 deadline... Now we come together to recognise [China] for [its] efforts," Graziano da Silva said, adding that the overall global objective remains the total eradication of hunger and malnutrition.

"Even today, in a world of abundant food over 840 million people are still undernourished. Ensuring food security and helping people overcome extreme poverty are the first steps to build the inclusive future we want, in which nobody is left behind." The MDG1 target was established by the international community at the UN General Assembly in 2000.

Forty countries have now achieved the MDG1 while of these, 19 have achieved the World Food Summit target of halving the number of hungry people in their countries. Such achievements, the FAO chief said, show how “the political commitment of governments is being transformed into effective action and concrete results in the fight against hunger”.

Food security can be a reality
He pointed out "strong regional commitments that support and stimulate national efforts to end hunger" including the 2025 Latin America and Caribbean HungerFree Initiative, moves by the African Union to endorse a zero hunger target for 2025 and the AsiaPacific's embracing of the UN Zero Hunger Challenge.

"These are efforts that are supported by nonstate actors and by the international community. They show that food security can be a reality in our lifetime.”

During the ceremony, the FAO chief also commended 16 countries for having maintained their hunger rates below 5% dating back to at least 1990: Argentina, Barbados, Dominica, Brunei Darussalam, Egypt, Iran, Kazakhstan, Lebanon, Malaysia, Mexico, Republic of Korea, Saudi Arabia, South Africa, Tunisia, Turkey and the United Arab Emirates.

Awards are based on statistics produced by the FAO using data provided by member countries and other international agencies.
More effort will be made to speed up China’s agricultural modernization, ensure the nation’s food security and increase farmers’ incomes, Chinese Vice Premier Wang Yang said on Tuesday.

China will modernize its farms to support sustainable and healthy development of the economy and society, Wang said at a seminar in Harbin, capital of northeast China’s Heilongjiang Province.

China should bolster the development of large-scale farming, improve agricultural infrastructure, enhance technology in agriculture, strengthen agricultural resources and environmental protection, said Wang.

It should also improve labor productivity, global competitiveness and the sector’s capability for sustainable growth, deepen reforms and establish an innovation system in rural areas, he stressed.

China’s sovereign wealth fund is shifting its focus to invest in agriculture and global food supplies in a significant strategic move that reflects the priorities of the country’s new leadership.

In an opinion piece in the Financial Times, Ding Xuedong, chairman of China Investment Corp, said the country’s $650bn sovereign wealth fund wants to invest more in agriculture around the world and “across the entire value chain”.

In a nod to the controversy surrounding past attempts by Asian and Middle Eastern governments to secure farmland and food supplies in poorer countries, particularly in Africa, Mr Ding said CIC wanted to partner governments, multilateral organisations and other institutional investors.

He also stressed his fund’s commitment to “shore up food security in places that we invest in and contribute our share to local job creation and economic growth”.

CIC will pay particular attention to agricultural sectors that have been neglected by large institutional investors in the past, such as irrigation, land transformation and animal feed production, he said.

The focus on agriculture has sharpened over the past year and marks the second major strategic shift for the fund since it was established in 2007.
A revision to China’s Food Safety Law had its first reading on Monday and pledges tough sanctions for offenders, promising the strictest food safety supervision system.

The current law has helped improve food safety, but the situation remains severe, said Zhang Yong, head of the food and drug administration, when briefing the lawmakers at the bi-monthly session of the Standing Committee of the National People’s Congress (NPC), which will run through Monday to Friday.

The existing system is not effective, penalties are comparatively light and it does not deter offenders, Zhang said.

A number of shocking malpractices, including injecting clenbuterol into pork, recycling cooking oil from leftovers in restaurant kitchens, selling pork from sick pigs, making medicine capsules with toxic gelatin and passing rat and fox meat off as mutton and beef have been headline news in China recently.

The latest case was use of illegal additives in growing bean sprouts, one of China’s most popular vegetables. Police in east China’s Shandong Province seized nearly two tonnes of toxic bean sprouts last week.

The bill is considered a move to realize the promise the current leadership made at the third plenary session of the 18th Communist Party of China Central Committee in last November, which is to establish the strictest ever supervision system on food safety.

Through the law amendment, the country expects to impose the harshest civil, administrative and criminal penalties on offenders and toughest punishment on supervisors who neglect their duties, Zhang said.

According to the bill, consumers can demand reparation worth of three times of loss they suffer from substandard food. Current law only allows compensation of ten times of the price of food.

As substandard food can be very cheap and can cause serious health problems and great financial losses, consumers expect to get higher compensation if the revision is adopted.

Bigger fines for offenders are also on the menu. Producers can face fines of up to 30 times of the value of their products, up from ten times in the current law. If the products are worth less than 10,000 yuan, those involved can be fined a maximum of 150,000 yuan, up from 50,000 yuan in the current law.

The bill adds provisions to punish landlords of production sites who know that illegal activities are being undertaken on their property, and suppliers who sell unlawful substances to producers, knowing that they will be added to foods. Their illegal income will be seized and they can be fined up to 200,000 yuan.

Administrative penalties, such as demotion and dismissal, will be imposed on officials who fail to respond to food safety emergencies and remove loopholes. They will also be held responsible for food safety cover-ups. Similar punishments will be dished out to officials with food and drug regulatory agencies, health and agriculture departments.

Those caught abusing their power and neglecting their duty for personal gain will face criminal penalties.
Beijing set up a commission on Tuesday to assess food and drug safety in the capital city, as scandals continue to erode public confidence.

The commission focuses on issues in four categories: food safety, drug safety, medical equipment and cosmetics.

The commission, consisting of 51 experts, including academicians from the Chinese Academy of Engineering, will carry out risk assessments.

Members of the commission will also give professional advice on the drafting of laws and regulations concerning food and drug safety, provide up-to-date domestic and foreign research to watchdogs, and help explain information to the public.

A slew of high-profile food scandals have shaken the confidence of Chinese consumers. In 2008, melamine-tainted baby formula caused the deaths of at least six infants and made 300,000 ill.

In April this year, a family-run workshop in east China's Jiangsu Province was found to be selling duck blood made with banned additives.

Meanwhile, a couple in southern Guangxi Zhuang Autonomous Region were detained by police on suspicion of adding alum, a banned additive, to food they were selling.
CONCERN OVER GM FOOD AS US CORN RETURNED
Source: Global Times, 02-07-2014

Scientists refute safety issues after modified strain found in shipments. The announcement that quarantine authorities have returned 1.25 million tons of US corn shipments after detecting an unapproved genetically modified (GM) strain has triggered concern among Chinese consumers.

Lu Chunming, an official with the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ), said at a Monday press conference that Chinese authorities have detected the GM strain MIR162 in US corn shipments since October last year when the first batch of MIR162-tainted corn was found in Shenzhen, South China’s Guangdong Province.

MIR162 is a kind of insect-resistant transgenic corn from Syngenta, a Swiss-based bio-technology company, and is not approved by China’s Ministry of Agriculture (MOA).

The decision to refuse the corn has seen a public debate over GM food safety, with some scientists saying the concerns are groundless.

"Rejection is an act of popularization of science too," Cui Yongyuan, a former TV host and a firm opponent of GM food, wrote on his Sina Weibo. His opinion was opposed by Fang Zhouzi, an expert in chemical biology and a GM food supporter.

"Cui has given the public misleading messages. The authorities returned the shipments not because they contain genetically modified products, but because it's not approved for import yet. China has approved other GM strains already," Fang told the Global Times.

Niu Dun, vice-minister of the MOA, told Reuters in March that China is in the process of approving MIR162, and the exact time will depend on the ministry’s bio-safety committee.

The AQSIQ called on Monday for strengthened control on inspection and asked port branches to return or destroy unapproved GM agricultural products.

"Companies should make clear in contracts that exporters must follow Chinese regulations and laws for their exports of corn and dried distillers grains with solubles (DDGS)," it added.

Seven shipments totaling over 1,277 tons of unapproved GM DDGS, material used as animal feed, were burnt in Fangchenggang, Guangxi Zhuang Autonomous Region on June 15, according to the local government’s website.

"The authorities are responding to public pressure which questions the allegedly loose management of GM food. They are trying to prove otherwise," Fang noted, adding that the rejected shipments from the US could be exported to South Korea, where the new strain is approved, but Chinese businesses may suffer financially.

Jia Zhaowu, CEO of ixumu.com, China’s first online community of animal husbandry, said that imports of GM corn and soybeans take up a large proportion of the Chinese market and few animal feed companies can weed out GM materials when domestic production is unable to meet the demand.

"GM food is usually cheaper as the yield is better but it needs less insecticide. China has the full potential to develop our own GM corn to win our share in the global food market where genetic modification is on the rise," Fang said.
FOOD SAFETY

WALMART TO TRIPLE SPENDING ON FOOD SAFETY IN CHINA

Source: Food Navigator Asia, 18-06-2014

This increased investment reflects our growing commitment to enhance food safety management in the supply chain and in all our stores," said Walmart China chief compliance officer Paul Gallemore.

Sean Clarke, the company’s regional president, added that food safety is rooted in Walmart’s compliance culture. "We strive for our customers to have complete trust in the products they buy from us. All our efforts are aimed to ensure the authenticity, safety and quality of food for our customers in China," he said.

More testing

With this increased investment, Walmart will focus on several key areas to further improve food safety management over the coming years.

These will include performing additional testing and applying tougher standards for suppliers, doubling DNA testing on meat products and increasing facility audits and inspections of primary producers by more than 30% over 2013 levels.

The number of facility audits and inspections of primary producers were up by one-half last year from 2012, with Walmart China performing more than 400 DNA tests for meat products, close to 1,400 third-party audits and inspections of farms, factories, processing centres, slaughterhouses, and more than 50,000 product tests in the company’s distribution centres.

Walmart China now has nine fresh distribution centres across China. Products are tested at these sites for compliance against safety and quality standards in a testing lab, while two additional fresh distribution centres will be added by the end of this year. Once it opens, Walmart distribution centres will serve every Walmart Supercentre in China.

In stores, the company is planning to introduce the Sustainable Paperless Auditing and Record Keeping (“SPARK”) system to China.

This technology has been used in Walmart’s American business to monitor food storage temperatures through wireless temperature measuring devices.

Temperatures and other measurements are automatically updated for analysis and monitoring.

Mobile labs, too, are to be ramped up as an additional effort to protect customers. Last year, Walmart China’s first mobile lab conducted over 35,000 tests on food in stores in Guangdong.

With the second mobile lab launched in Shanghai at the end of last year, the two labs now serve 147 stores in Guangdong, Jiangsu, Zhejiang and Shanghai, and the number of tests is expected to double this year.

Other safety initiatives will include enhanced in-store food safety standards and strengthened stores auditing for its 400 outlets across China, and a stronger compliance team."
The pace of change in the Chinese meat industry is rapid, with both demand and prices up, and modernisation continuing apace, the president of the China Meat Association told delegates to the World Meat Congress.

"In recent years, China’s meat industry has grown, there has been a significant increase in investment and rising domestic demand and the modernisation of Chinese meat industry is proceeding at a fast pace," Meng Qingguo told the congress in Beijing.

Overall, average business revenue across the meat sector grew in 2013 by 14.5%, he said, while profits and taxes were also on the rise in the same period by 18% overall. "Generally speaking, China’s meat industry is in a period of fast growth."

Output was also on the rise, with pork leading the field, growing by 2.8% in 2013, beef was up 1.7%, mutton rose 1.8% and poultry 1.3%. Total meat output across China stood at around 85m tonnes, while consumption per capita head has not hit 60kg.

Prices were also rising, with beef seeing the highest increases, climbing by 18.5%, followed by mutton up 14.3%, while poultry and pork showed more modest increases of 0.7% and 0.4% respectively. Poultry prices were held back by the avian influenza outbreak, which saw prices fall across the country.

He told delegates there was a widening deficit between the country’s imports and exports, with imports growing during 2013 by 30%.

When it comes to modernising the industry, he said work was ongoing to consolidate the industry, and since 2011, around 5,000 smaller companies had been phased out, and that was only "half way".

He added that the smaller companies continued to pose a safety risk, so it was a serious challenge to the Chinese meat industry. "We need to think about how to phase out backwards production and speed up modernisation," he said.

Despite this need for modernisation, China remains a major player in the global meat industry; its pork sector produces around 55m tonnes of pig meat a year, and accounts for around 50% of the world’s production.
**MEAT**

RABOBANK HIGHLIGHTS GROWTH OPPORTUNITY FOR MEAT IN ASIA

*Source: Global Meat News, 23-06-2014*

The meat markets are rapidly changing, and nowhere more so than China, the World Meat Congress in Beijing was told.

Speaking to international delegates, Jeroen Leeflaar from Rabobank said that, with the US as the benchmark for consumption, there was considerable room for growth across Asia.

He said the fall in developed countries’ consumption was putting greater emphasis on international trade: "Consumption in the US is in decline, but because the population is growing, the level of decline is negated."

"However, as consumption in the US and EU is under pressure, exports are becoming increasingly important [for producers in those regions]."

In China itself, he said the increase in spending power among Chinese consumers was fuelling price rises, albeit "at a slightly low level".

However, chilled pork sales were rising and had the potential to double over the next five years, a key trend was in the development of consumer demands, with packaged and convenience pork products starting to gain greater market share over fresh pork sales.

He said that, internally, pig production in China was still fragmented, but consolidation was expected to accelerate as the government makes food safety and quality a top priority.

**WHEAT**

BUMPER YEAR FORECAST FOR CHINA’S WHEAT FARMERS

*Source: Xinhua, 02-06-2014*

The roar of combine harvesters in China’s major breadbasket of Shandong Province signalled the beginning of the wheat harvest on Monday.

The Ministry of Agriculture on Friday forecast an output rise of summer grain and the 11th consecutive bumper harvest. Wang Fahong, a wheat expert with the Shandong Academy of Agricultural Sciences, said both per-unit wheat yield and total yield this year in Shandong would increase.

China produced 120 million tonnes of wheat last year, one fifth of the world's total. The planting area of summer grain is estimated at 27.67 million ha this year, almost 70,000 ha more than in 2012.

This year, more than 14 million mechanical harvesters will be used for 92 percent of the harvesting work.

Shen Hongyuan, senior analyst of the Zhengzhou Grain Wholesale Market, said that China’s wheat harvest was important in keeping the world’s wheat price stable.

The Chicago agricultural commodity futures traded lower on Friday in response to the forecast. The price of wheat closed at 6.27 U.S. dollars per bushel, down by 0.83 percent from the previous day trading.
China will step up efforts to purchase and store grain and build more granaries as its grain output rises, according to an official statement on Wednesday.

In 2014 and 2015, the country should build new grain-storage facilities capable of holding 50 billion kg of grain, concentrating them in its northeast and south, said the statement, issued after a State Council executive meeting presided over by Premier Li Keqiang.

The meeting concluded that China should innovate in financing for granary construction by guiding social capital to participate in the process.

It should also support the construction of storage buildings with drying facilities by farmer cooperatives and major specialized farming households in the main grain-producing areas.

In 2013, China’s grain output rose 2.1 percent from a year earlier to 601.94 million tonnes, marking the 10th consecutive year of growth.

"This year’s summer grain is set to see another bountiful harvest, but granary capacity is insufficient on the whole and seriously inadequate in some regions," the statement said.

As a result, grain storage is not only an urgent task, but also an important mission in the long term, it said.

China implements a policy of national grain purchase and storage in an effort to adjust total grain supply, stabilize the grain market and make reserves for natural disaster and other emergency cases.

The country should make room for new grain by selling old grain and conduct special inspections to make sure that all national granaries are used for storing grain, according to the statement.

On the condition that farmers' interests are guaranteed, China will push for transformation from the current policies on minimum purchase prices, temporary grain purchases and agricultural subsidies to a target price system for agricultural products.

The country will start experiments with varieties of soy bean and cotton. When market prices fall below the target price, the government will subsidize farmers to ensure their earnings, it was decided at the meeting.

However, if market prices rise and lead to rapid increases in the overall price level, the government will offer subsidies to low-income people.

No exact timetable was given in the statement.
continued...

"The country must fully capitalize on the functions of foreign trade and national grain reserves in adjusting demand and supply to avoid excessive fluctuation of agricultural product prices," according to the statement.

It also said the country should guide the transfer of some industries from the east to its central and western regions in an orderly manner.

The move aims to promote balanced regional development, push forward the urbanization of the less-developed regions, create more jobs and seek economic growth at a higher level.

Local governments were urged to cultivate sound environments for receiving industries from the eastern regions by improving infrastructure and providing quality support services.

The country will give full play to market forces and meanwhile underline policy guidance to facilitate the industrial transfer, the statement said.

**GRAIN COMPANY OFFICIAL STRIPPED OF CPC MEMBERSHIP**

*Source: Xinhua, 16-06-2014*

An official with China Grain Reserve Corporation has been stripped of his Communist Party of China (CPC) membership over suspicion that he severely violated disciplinary codes, the party's disciplinary watchdog said on Tuesday.

Xu Gefei abused his power when he served as chief of the CPC committee of the corporation's Jilin provincial branch, causing huge losses, said the CPC's Central Commission for Discipline Inspection (CCDI) in a statement on its website.

Xu was also formerly general manager of the branch.

The punishment was decided after inspectors sent by the CCDI transferred Xu's case to disciplinary authorities of the State-owned Assets Supervision and Administration Commission of the State Council, according to the statement.
Behind the scenes at a chicken processing plant.

Live chickens returned to city markets on May 1, after trading was shut down for three months in a move to control the possible spread of avian influenza. This was good news for the many Shanghai householders who prefer live chickens over the chilled variety but not great news for chilled chicken processors.

Though the municipal government has been urging residents to buy refrigerated chickens since it ordered the temporary closure of the live poultry trade for the first time last April, many residents still have concerns about the taste and hygienic standards of refrigerated chickens and prefer to see their chickens freshly slaughtered in front of them.

The Wangyuan Poultry Farm is one of the city’s largest poultry farms and is one of Shanghai’s designated refrigerated processors. The Global Times visited Wangyuan recently to look over its operation. Last year Wangyuan raised 110,000 breeding hens. Fertilized eggs from these hens were taken to Wangyuan’s chicken rearing farms in Shanghai and in neighboring Jiangsu and Zhejiang provinces.

After being reared and vaccinated at the farms, the mature chickens are taken for processing. Each bird is checked and certified by quarantine inspectors.

At the beginning of the operation each bird is given an electric shock and has its throat cut before being placed on assembly lines where machinery removes its feathers, and then washes the body thoroughly before workers remove the internal organs.

The birds are then taken to a cooling room where the temperatures drop to between 0 and 4°C within an hour and then moved to other cooling and storage chambers. The birds then undergo more checks by processing staff and government inspectors before finally being packaged and sent to shops and markets.
CHINA LIFTS TEMPORARY BAN ON BRITISH CHEESE EXPORTS

Source: Food Navigator Asia, 09-06-2014

The UK Department for Environment, Food and Rural Affairs (Defra) has welcomed China's decision to lift the temporary ban applied to British cheese exports.

In a statement issued on June 6 2014, Defra announced that the ban on British cheese exports to China, implemented in April 2014 after “issues related to maintenance, air sanitation, raw milk transport temperatures and chemical storage” were identified at a single facility, had been lifted.

Cheesemakers were informed that the trade block would remain in place until all UK cheese plants exporting to China had been audited by local authorities.

Now, with this second round of inspections seemingly completed, British cheesemakers have been given the green light to restart shipments to China.

Defra, which worked alongside the UK Food Standards Agency (FSA) and Chinese officials to reestablish the flow of cheese to China, welcomed the news.

“The Chinese market is vital for the UK with exports of food, feed and drink worth £257m last year,” said the statement. “We appreciate the Chinese authorities’ help and support to resolve this quickly.”

Food safety laws
The April 2014 inspections that resulted in the temporary ban were carried out by Chinese officials prior to the introduction of new food safety laws.

Under the revised regulations, which came into force on May 1 2014, only dairy products manufactured at facilities approved by the Chinese Certification and Accreditation Administration (CNCA) are permitted to enter the country.

As of June 5 2014, a total of 14 British cheese manufacturers, including First Milk, Adams Food, and Wensleydale Dairy Products, had been granted permission to export their cheese products to China. These firms were informed on Friday that the temporary ban had been lifted.

DairyReporter.com approached a number of the listed cheesemakers to gauge reaction to the news, but none replied prior to publication.

DairyUK, which represents the interests of the entire British dairy supply chain, also declined the opportunity to comment on Friday’s announcement.

CNCA lists
The CNCA lists were established following the issuance of Decree 145 (Administrative Measures for Registration of Overseas Manufacturers) by the State General Administration of the People's Republic of China for Quality Supervision and Inspection and Quarantine in December 2013.

In line with the new regulation, foreign authorities, including the US Food and Drug Administration (FDA), the New Zealand Ministry for Primary Industries (MPI) and Defra, were required to provide CNCA with a list of accredited dairy manufacturers.

This tightening of legislation has already produced results.

On June 1, CNCA announced that just 94 foreign liquid and powdered infant formula brands manufactured at 49 separate facilities across Europe, Asia, Australasia, and North America had been granted permission to enter the country.

Prior to the rule change, between 800 and 1,000 imported infant formula brands were reportedly available in China.”
Shengmu Organic, China’s largest organic dairy player, is seeking to raise up to HK$1.3bn (US$169m, €124m) through an initial public offering (IPO) of shares in Hong Kong.

Sponsored by Goldman Sachs and BOC International, the IPO opened yesterday with an offer of 444.8m shares priced at between HK$2.39 (US$0.31, €0.26) and HK$2.95 (US$0.38, €0.28).

Through the initial offering, which will remain open until July 7 2014, Shengmu Organic could raise between HK$1.063bn (US$137m, €100m) and HK$1.312bn (US$169m, €124m) - much of which will be spent expanding the dairy’s milk production.

Around a tenth of the offer shares - 44.48m to be exact - will be offered in Hong Kong and the rest internationally. An extra 66.72m shares could be issued in a follow-up offering, Shengmu said.

Bau Hua, a subsidiary of COFCO Agricultural Industrial Equity Investment Fund, has committed to buying US$30m (HK$232.5m, €21.9m) worth of shares, the Wall Street Journal reported.

Shengmu Organic will float on the Hong Kong Stock Exchange on July 15 2014.

**Investment**

As well marketing around 20,700 tonnes of liquid dairy products in 2013, Shengmu Organic supplied more than 68,500 tonnes of organic raw milk and nearly 111,500 tonnes of unpasteurized milk to the likes of Mengniu, Yili, and Want Want.

While supplying raw milk currently accounts for a larger proportion of its business, the organic milk is produces is "increasingly sold after processing as liquid milk products under our Shengmu brand," said the company in a post offering information pack.

In line with increasing demand from consumers and its customers, Shengmu Organic intends to plough around a quarter of the cash raised through the IPO into the construction of six new dairy farms over the next 18 months.

The firm also plans to invest 30% of the raised capital to increase its herd of more than 91,000 cows - 30,621 across 13 organic farms and 60,457 on its 12 non-organic sites - by 15,000 in 2014 in 2015.

What’s remaining will be set aside to expand its milk processing capabilities (15%), to repay its bank borrowings (15%), on marketing and promotions (5%), and to top up its general working capital (10%).
Decentralized milk supply chains were largely to blame for the melamine scandal that bankrupted China’s Sanlu in 2008, but its partner Fonterra’s experience did not appear helpful in stopping deadly safety problems, a study claims.

Writing in the International Journal of Production Economics this month, Chen et al. use Sanlu’s demise – bankrupt by the December 2008 – as a case study to draw out managerial and policy insights and implications regarding supply chain design, informational visibility, corporate social responsibility and regulatory action to manage global food supply chain quality and risk.

“Our analytical results and two comparative cases show that, instead of the common ‘poor quality’ misperception of food products from global emerging markets, it is actually the poor vertical control strategy for managing the food supply chain quality and risk that caused the adulterated milk incident,” they write.

In 2008 Sanlu Group – Fonterra’s partner had high melamine levels in its products – was quick to blame milk farmers and dealers who sold it milk contaminated with the chemical compound, which was later used in infant formula.

Sanlu was subsequently implicated in the adulterated milk powder scandal that properly broke in the Chinese and world media in September 2008; this affected circa. 300,000 Chinese infants and killed six due to kidney damage.

Dubbed by the World Health Organization (WHO) the “largest food safety event...in recent years”, the scandal – which arose because melamine was added to milk to misrepresent protein content – was a hammer blow to the Chinese dairy industry, which had been driven by what Chen et al. calls the “blind expansion” of China’s big four in the 2000s – Yili, Mengniu, Sanlu and Bright.

The 2008 incident - melamine was first officially detected in Sanlu’s formula in August 2008, Fonterra claimed it pushed hard for a full recall then – coupled with problems in operations and supply chain management led to a “breakdown of quality assurance in the Chinese dairy industry”, Chen et al. insist.

Sanlu relied unduly on a highly decentralized ‘dispersed sourcing model’ to cut costs and maintain flexibility as it worked to establish markets then factories, they write – paying more or less for milk using a gradated system that measured protein levels and thus provided the temptation for fraud.

Inadequate oversight led to Sanlu’s suppliers and collection agents using melamine, Chen et al. write, while price caps imposed by China’s government and feed price hikes also encouraged cheating.
“Sequential investigations and analyses revealed that Sanlu’s weak supply chain control, especially the lack and training and monitoring of business partners, allowed the adulterated milk to pass through the quality control and inspection points in the company’s supply chain and eventually reach its customers,” they add.

But since most multinationals have established quality management systems, the academics write that it is “hard to imagine how those hazardous food products could have passed all the quality inspections along their supply chains to reach the marketplace on such a massive scale”.

“Additionally, the pressing requirements for fast delivery and low costs imposed by multinational firms can also severely challenge a supplier’s bottom line, which results in quality alteration or deterioration,” Chen et al. add.

However, the academics claim that in 2008 Fonterra’s experience — as Sanlu’s foreign partner and major stakeholder with a 43% shareholding — “did not appear to be helpful” in stopping quality/safety problems.

“While Fonterra advised Sanlu on quality testing, the New Zealand company said that it never checked any of its partner’s products and was not aware of the practice of adulteration until one month before the incident erupted,” they add, citing a Financial Times article from 2008.

Advancing a new theoretical model for food supply chain quality control, Chen et al. claims to present the first analytical model identifying the effects of “quality distortion” due to sampling testing technology and different supply chain structures.

“Our analyses show an important truth about food quality control in today’s global emerging markets. Managing food supply chain quality and risk requires the integrated strategy which addresses issues in supply chain design, quality testing and verification, informational visibility, regulatory environment, and perhaps most importantly, corporate social responsibility,” Chen et al. conclude.

Title: ‘Quality Control in Food Supply Chain Management: An Analytical Model and Case Study of the Adulterated Milk Incident in China’
Authors: Chen, C., Zhang, J, Delaurentis, T.
Plagued by food contamination scandals and environmental issues, the Chinese middle class is now more eager on certified organic food imports.

Joanne Barber, commercial and marketing executive for Australian Organic, said that there is growing demand in China for Australian organic milk, dried fruits, nuts, citrus fruits, wheat flour and coffee.

Australian Organic, which owns the nation’s largest certifying group, Australian Certified Organic, recently signed an agreement with its counterpart, the Organic Food Development and Certification Centre of China (OFDC).

According to the industry body, the agreement follows years of negotiations and paves a smoother road for Australian exporters, particularly beef and wine producers.

Under the agreement Chinese-trained Australian inspectors can audit businesses on China’s behalf.

Alister Ferguson, chief executive of Arcadian Organic & Natural Meat, said that the agreement is fantastic because it will enable them to access more customers in China, which is a growing market for companies like his.

“It will simplify the process of exporting to China, reducing the red tape that currently exists,” said Ferguson.

The agreement comes after the release of a new IBISWorld report showing that organic farming is one of the Australian economy’s best performing agricultural industries over the past five years.

The report shows organic farming is forecast to record outstanding growth of 50% over the next five years and anticipates Australian farmers will export more food as Asia’s population continues to grow.

According to Australian Organic, the organization is now also working with Austrade and NSW Government Trade & Investment in Shanghai to build more trade links for Australian certified organic businesses.

On the cards is a new program to help businesses that are seeking organic certification, which is expected to boost organic exports to China.

“The new on-boarding program will make the transition to organic farming easier for producers,” said Barber. “We’re getting a lot of interest in certification from businesses that are quite new to the strict requirements of organic farming.”
China has finally published official dietary reference intakes (DRIs) for EPA and DHA omega 3 fatty acids—a move that is expected to help thousands of its consumers who are at risk of poor health by not consuming enough of the substance.

Eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) are found in cold water fish, and contain five and six double bonds on their long structural chain, making them highly unsaturated fat.

As vital nutrients, these polyunsaturated fats play a very important role with the function of our bodies by helping form neural transmitters, such as phosphatidylserine, for brain function, maintaining normal eye function and regulating cell activity for healthy cardiovascular function.

According to the Chinese Nutritional Society (CNS), recommended intake for adults should amount to between 250mg to 2,000mg per day.

Quantities of up to 100mg per day are sufficient for children from birth to four years; while pregnant and lactating women should take 250mg per day of EPA and DHA, of which 200mg should be DHA.

However, the society did not recommend any specific level of intake for children between four years old and 18 years old.

The CNS is currently in the process of compiling a wider update to dietary reference intakes, with the Chinese government expected to release further details over the next three months to explain the thinking behind the new recommended levels.

With an estimated 188,000 people dying in China because of low omega 3 intake, according to the World Health Organisation, Chinese consumers critically need to increase their their consumption of EPA and DHA. Doctors hope the publication of official reference intakes will be an important step forward in educating the public.

According to an article published in the British Medical Journal, the average Chinese intake of long-chain omega-3s only averages 37mg per day—a figure that is significantly lower than what features in the new official reference.
SCIENTISTS LINK POOR NUTRITION WITH CHRONIC DISEASES FOR FIRST TIME

Source: Food Navigator Asia, 24-06-2014

International research involving the University of Adelaide has shown for the first time that poor nutrition, including a lack of fruit, vegetables and whole grains, is associated with the development of several chronic diseases over time.

The results of the study, which looked at health, diet and lifestyle data of more than 1,000 Chinese people over a five-year period, are published in this month’s issue of the journal Clinical Nutrition.

Researchers found that the proportion of those in the study with more than one chronic disease increased from 14% to 34% over the five years.

Direct association
"Risk factors such as smoking, lack of physical activity and nutrition are already known to be linked to the development of chronic disease," said study co-author Dr Zumin Shi, from the University of Adelaide's School of Medicine.

“But this is the first time research has shown that nutrition itself is directly associated with the development of multiple chronic diseases over time.

"Those participants who ate more fresh fruit and vegetables, and more grains other than wheat and rice, had better health outcomes overall.

"Grains other than rice and wheat, such as oats, corn, sorghum, rye, barley, millet and quinoa, are less likely to be refined and are therefore likely to contain more dietary fibre. The benefits of whole grains are well known and include a reduction in cardiovascular disease, diabetes and colorectal cancer.

"Rice intake was significantly lower in the healthy group. This could be because rice is mainly refined and deprived of the benefits associated with fibres, and the kinds of phytochemicals that you find in whole grains."

Importance of micronutrients
Shi said the study highlights the role of micronutrients in protecting against disease: "A higher daily intake of iron, magnesium, phosphorous, vitamin C, potassium and vitamin B1 was associated with healthier participants.

"Based on our results, it seems that a higher intake of fruit helps to prevent against the onset of the first chronic disease, while a higher intake of vegetables helps to protect against developing more than one chronic disease.

"There is already a lot of general nutrition awareness among the population but this study reinforces the need for broad education programs about the benefits of healthy eating."
SUPPLEMENTS

LIGHT AT THE END OF THE TUNNEL FOR CHINA SUPPLEMENT IMPORTERS

Source: Food Navigator Asia, 09-06-2014

The regulatory management of China’s dietary supplement industry has always been a controversial issue, especially over the last six years.

The current regulations require companies to apply for registration with China’s Food and Drug Administration to gain the “blue hat” mark for their products.

However, this process requires two to three years of administrative procedures, rigorous testing and clinical trials. Furthermore, this is not an inexpensive endeavour: once finalised, most registrations can cost upwards of US$100,000 or more per product depending on what claim is being made and what ingredients are used.

As the process is not at all transparent, registration agents are typically hired to assist in navigating the process and keeping the procedure moving forward. Of course this service is not free and adds to the overall investment in the blue hat.

Up to now, the system has allowed a select group of companies to monopolise the industry as they have invested heavily to obtain blue hat registrations in the 1990s. If we take a look at the numbers of registrations handed out between 2010 and 2013 alone, we can see the great majority of these have been given to domestic companies.

Here are the numbers: Domestic – 3,154 Foreign – 56.

It is a well known industry rumour that many of these domestic registrations are in fact being held by companies that look to sell them and make profits.

Transferring a registration from one company to another is faster than going through the entire process from scratch. And because the registration process is so costly in both time and capital, there are companies willing to pay for these “pre-registered” products in order to expedite their entry to market.

Now this is not to say the government is refusing to give registrations to foreign companies; rather, it is a reflection of most foreign companies refusing to invest in such an unreasonable regulatory system.

The US-China Health Products Association is regularly queried by global players with a flurry of “whys”, such as why does China treat dietary supplements as though they are drugs when they are regulated as food or nutritional products in the rest of the world? Why does China force companies to go through clinical trials and testing when these ingredients have decades of safety data and why must companies go through the process when similar or identical products have already received registrations? What’s with all the redundancies? Why are some dietary supplements registration as OTC drugs, others as blue hat health foods, yet others as traditional Chinese medicine and others as food?

It makes for a very confusing landscape for consumers and is hurting industry development. The current regulations are seen not only as prohibiting the healthy development of the industry, but also as a barrier to trade.

The US-China Health Products Association recently released an export potential report, that showed the US dietary supplement industry is losing in excess of US$8bn in exports to China, as well as over 2,700 jobs that would be created as a result of such exports.

Although this report focused on the US industry,
other global and domestic players are all losing out. The association feels the biggest losers in this situation are the consumers as they are denied cutting-edge dietary supplements that could help them live longer healthier lives. (With China’s enormous elderly population looming, the issue of “healthier lives” is a very important point.)

The great news is there might be light at the end of the tunnel. This year China’s FDA has publicly stated that the dietary supplement (health food) industry will be revised and include a notification-type system. But as these proposals are still being debated, it is hard to say how much of that “light” gets through.

This spring, China’s National People’s Congress put forth legislation that would end the blue hat system and allow dietary supplements to be handled with a notification-type system. However, these reforms are being challenged.

There are two opposing sides to this ongoing struggle to develop China’s dietary supplement industry.

One idea is to do away with the blue hat regulatory system and place it under the overall food safety law regulation, meaning dietary or nutritional supplements would be handled more as a type of food, which would require companies to submit products on a notification basis to the government.

This of course would streamline the “to market” process and solve almost all of the issues mentioned earlier.

The other idea is to keep the system the way it is. This is being promoted by companies that have already invested heavily in the blue hat system and have been dominating the industry while amassing huge profits as a result.

The association sympathises with these companies, as we understand giving up a steering position in the industry is not ideal especially for shareholders.

However, the simple fact is that free market forces are pushing the industry to develop and open to competition. The China market is huge and there will be enough profits to go around for everyone.

This is not a bad thing at all as it will increase the size of the industry dramatically; encourage domestic and foreign investment; increase the development of new sales channels like health food stores; spread education to consumers; increase the number of legitimate players, which in turn will decrease the market space for unscrupulous players seeking to cheat consumers; and finally offer consumers a much larger range of healthy products to choose from.

We hope to see the light at the end of the tunnel at year’s end and look forward to witnessing Chinese regulators make the right decision by allowing market forces and consumer demand to drive legislation. Jeff Crowther is executive director of the US-China Health Products Association.”
SUPPLEMENTS

THE HERBAL FRAUD: AMERICAN GINSENG IS OFTEN MADE IN CHINA
Source: Global Times, 10-06-2014

If there is anything that enjoys more popularity outside its home country than in it, it has to be American ginseng (Panax quinquefolius).

The largest importer of American ginseng roots in the world today is China but the Chinese market is now dominated by ginseng fraudulently labelled as coming from America.

Also known as xiyangshen ("Western ginseng") or huaqishen ("color flag ginseng") in Chinese, American ginseng was introduced to China over 300 years ago during the Qing Dynasty (1644-1911) and since then its roots have been used as a Chinese herbal medicine believed to have a cooling effect and able to relieve fatigue and cure colds.

In 1975, it was successfully planted in areas in northern and northeastern China, especially in Jilin Province. Changbai Mountain in Jilin, especially, has become a major producer of American ginseng and its Jingyu county has been dubbed China's "home-town of American ginseng," producing 200 tons of dried ginseng roots every year.

In China, the herb is often stored in large glass jars in traditional Chinese medicine pharmacies. Pharmacists sell the herb by weight.

Highest levels
But the American ginseng that is grown in the US is considered the best quality and is usually much more expensive than ginseng from China in particular. Research has shown that wild American ginseng has the highest levels of natural ginsenoside, the active component, compared with the herb grown in Canada or China and therefore is considered most efficacious as a medicine.

A man surnamed Chen, who works in the ginseng industry, said the wholesale price of US-produced American ginseng in China is about $200 a kilogram plus 10 percent import duty, which means importers pay over 1 yuan ($0.16) a gram. In Chinese pharmacies, American ginseng is sold at 2 yuan to 4 yuan a gram alongside a label showing it is imported. This is several times the cost of the American ginseng from Jingyu county in Jilin Province. The huge price gap has encouraged many growers and sellers to label their homegrown product as coming from American.

Chen said that even back in the late 1990s, only 5 percent of the American ginseng in China's ginseng market was actually produced in America. The situation has not improved. Much of the herb is grown in northeastern China and labeled "made in America." Other batches are first sent to America and then imported back to China, which boosts the price using a legal loophole.

In Caitongdetang, a famous traditional Chinese medicine shop on Nanjing Road East which sells American ginseng, staff refused requests to show a
Shanghai Morning Post reporter the import certificates proving the origin of their ginseng. "It's our commercial secret - we don't show reporters our certificates," a staff member insisted.

At the Shanghai No.1 Pharmacy, staff members told the reporter that their certificate was in another office so they were unable to show it at that time.

Voicing skepticism

When buyers voice skepticism about the origins of the American ginseng they are being offered, most of the shop assistants reassure them by saying that such a large well-established store in the Nanjing Road Pedestrian Street would never sell fake goods.

However officers from the Nanjing Road East Office of the Shanghai Administration for Industry and Commerce said that sellers of imported ginseng should have copies of their import certificates available. Inspectors who checked on four Chinese traditional medicine pharmacies on Nanjing Road East found that none could produce their certificates immediately.

According to Shanghai Customs, from January to April, only 45 kilograms of American ginseng were imported to Shanghai through customs. Last year, 500 kilograms of American ginseng were imported, with an estimated value of $17,500, and all of this was imported from Canada.

And the situation is not better in the US, where the best ginseng comes from. A Shanghai Morning Post reporter paid $100 for 0.45 kilograms of American ginseng roots in Atlanta's Chinatown in April, but was told by people in the ginseng industry that that type of ginseng was imported from China and worth only $30 for 0.45 kilograms.

Pesticide problems

The overuse of pesticides is another problem with Chinese-grown American ginseng. While the US and Canada have strict restrictions on the use of pesticide for ginseng growers, these restrictions are lacking in China.

The Shanghai Morning Post reporter visited a ginseng farm in Jingyu county in May. It was common to see empty pesticide and fertilizer packages around the farm and farmers in the region admitted that they needed to use pesticides to save their crops.

Local farmers said there were no pesticide usage restrictions for growing ginseng in Jingyu county. The government asks farmers to sign pledges to limit the use of pesticides, but the pledges are not legally binding.

There are more than 20,000 ginseng growers listed in the country and most are found on small or medium-sized farms with an arbitrary approach to the use of chemicals in agriculture.
Xanthan prices continue to be very competitive, guar prices remain steady and cassia prices have escalated owing to a reduced crop in India, according to a hydrocolloids analyst.

Prices of Chinese origin xanthan have dipped down to €3 per kilo and even lower in some cases, says Dennis Seisun, founder of hydrocolloid market research and consulting firm IMR International and publisher of the Quarterly Review of Food Hydrocolloids. Whilst this provides extremely favourable conditions for buyers, western producers are having a hard time competing on price and are having to trade on reliability and quality instead.

EU enjoys lowest pricing

Even in the US, where an anti-dumping action is in effect, Seisun says prices continue to be competitive. “The anti-dumping duty imposes huge levies of up to 150% on xanthan imported from China into the US, but Chinese suppliers are nevertheless managing to keep their market in the US.

Europe, on the other hand, is the lowest priced market for xanthan because there is no anti-dumping duty,” he told FoodNavigator.

Chinese production capacity has grown exponentially in recent years, with new producers continually coming on stream. Seisun estimates that in excess of 200,000 tonnes of xanthan are produced in China alone, compared with under 100,000 tonnes five to ten years ago.

Another draw for EU buyers is that Chinese suppliers are able to certify their xanthan as GMO-free; any xanthan produced from GM-modified US corn is virtually unsaleable in Europe.

The dichotomy of cassia and guar

Cassia tora gum prices have escalated owing to a poor crop in India – the main producing region – following a late monsoon. Seisun puts prices at €2.8-3.5 for pet food grade cassia, €8-10 per kilo for food grade cassia and €18-20 for chemically modified cassia.

Paradoxically, the price of guar gum, which grows in similar areas in India and is also dependent on the monsoon season, is steady at around $3 per kilo.

“I can’t explain why the cassia crop has declined significantly, resulting in higher prices, but the same can’t be said for guar, even though they grow in similar areas and under similar conditions.

One possible explanation is that guar is such a large volume market that stocks are much larger and it is able to absorb fluctuations in raw material supply much better,” said Seisun.

US boosts processing capacity

Seisun notes that the US is adding new split processing capacity, but says this will do little to alter the dynamics of the market, as most guar is grown and processed in India (85%) and Pakistan (12-13%), with the rest of world only contributing 2% maximum.

“Even if the US doubles its capacity it will still only account for 1.5-2% of global supply,” he said.

Looking forwards, Seisun predicts that guar prices will stay stable for the rest of this season and into the next given the crop and the level of carryover stocks.

“I hope we don’t head for either of the two extremes we’ve experienced with guar – when it could hardly be given away at $1 per kilo or the crazy situation when it was $25-30 per kilo. The present $3 dollar range is sustainable and represents good value for farmers.”
LOW MARGINS PUT OFF LEADING WINE BROKERS DESPITE BOOM IN IMPORTS

Source: Food Navigator Asia, 30-06-2014

Although China wine market has been booming for some time, the low prices charged by online importers means few leading brokers and retailers have been tempted to enter the business.

Currently, the market for imported wine stands at RMB100bn (US$16bn), though profits for wine companies have been shrinking in recent years due largely to the popularity of e-commerce firms that charge much tighter margins than traditional traders.

**e-Business boom**

This is a new trend for China. Before 2010, wine imports were largely procured by corporations and government departments through trading companies, with relationship selling playing a big part in the trade.

The importers were able to set high margins by taking advantage of a general lack of knowledge about wine at a time when the market for Western products began to boom and the current government-level austerity measures had not been put in place.

But now the e-business model has forced an impact on traditional importers and traders, many of whom saw a decline in sales last year to the point that some of the larger operators witnessed falls in revenue by as much as 30%.

Importers are also suffering on the back of retail growth and the shelf charges that are popular among Chinese supermarket and convenience store chains.

Smaller agents often have a tough job to gain access to such outlets as distribution chains, with stores regularly charging at least RMB300 (US$48) per store per year to place individual lines on shelves.

With chains going through frenzied expansion, to the point that some supermarkets and convenience stores will see more than 100 new outlets this year, the annual cost for distributors to stock just one wine item could easily reach RMB100,000 (US$16,000).

**Further growth predicted**

In spite of a lack of high-level importers, the wine market looks well set over the next five years, according to a recent report in Shanghai's CBNweekly magazine, with imported wine accounting for almost one-third of all sales in China.

This figure has grown significantly over the last decade—10 years ago, nine out of 10 bottles were supplied by China Great Wall Wine, Changyu and Dynasty—China’s big three domestic producers, with little in the way of imports.

However, in 2012, China overtook France and the United States to become the world’s biggest consumer of red wine, although the white wine market still trails far behind the US.

Last year, Greater China consumed almost 1.9bn bottles of red wine, an increase of 136% from 2008, according to statistics from Vinexpo, the wine exhibition company.

Vinexpo has since projected China’s wine market will grow by a further one-third by 2017, of which imported wine will account for half of the total.

The growth largely reflects the rise of the country’s middle-class, with the market no longer depends on procurement or gift sending. In the past, the retail sector accounted for just 30% of the total wine market, but this situation will gradually change as the emerging middle class will focus on enjoying their expanding wealth and leisure time.
Another harvest season, and fields of rippling wheat under sunny-blue skies are waiting to be reaped. But where farmers once worked these fields with sickle and scythe, over time the process has become industrialized.

Now, each May across southwest and northeast China, the roar of combine-harvesters announces which fields have ripened.

Qu Changcheng, 39, from Fengyang, Anhui, has worked as a harvester for seven years. This year, he and around 2,000 others from his hometown started their journey in late April, heading to Sichuan then turning northward - by the time he will arrive home in June, his own fields will be ready for harvest.

Until then, Qu’s combine-harvester will be both his home and his workplace. These men will together carve a V-shape across China over 5,000 kilometers long, as they "follow the wheat," offering themselves as freelance farmers at the best possible price.

But competition is fierce, as demonstrated by license plates from Anhui, Henan and Jiangsu provinces all jostling for business. Sometimes, Qu has to skip breakfast, and drive early to the fields and valleys to solicit customers.

He can expect to earn around 35 yuan per mu (one sixth-acre) and, only as the sun sets around 7:00 pm, can Qu and his wife expect to sit down by their combine and take their first meal of the day.
Rapid industrialisation has left a legacy of soil pollution that is damaging health and livelihoods in villages across China, reports Chinadialogue.

When Zhang Junwei’s uncle died in February 2012, he was only 50. In the three years that he had endured the cancer that killed him, surgeons had removed both his rectum and his bladder. “Perhaps he was better off dead,” said Zhang, reflecting on his uncle’s ordeal. “It was a release.” Two years after his uncle’s death, Zhang still refuses to name him, afraid that even now, talking about how his uncle lived – and died – could bring trouble down on the family.

Zhang’s uncle lived in Fenshui, in Central China’s Jiangsu province, a village of some 7,000 people that straddles a network of waterways on the western shore of Lake Tai, China’s third largest freshwater lake. Lake Tai boasts 800 square miles of fresh water, shared between Jiangsu and Zhejiang provinces, and has been celebrated throughout Chinese history for its abundant fish and beautiful limestone landscape.

But as China’s industrial boom gathered speed through the 1990s and the early years of the 21st century, a new, metalled road connected the once sleepy village of Fenshui to the major highway networks being built across China. Factories began to cluster along the lakeshore and the village’s traditional single-story whitewashed houses, with their signature black-tiled roofs, were steadily replaced with two- and even three-storey houses, as factory wages brought a surge of prosperity to Fenshui. Zhang’s uncle, like many of his neighbours, had found work in one of those factories.

His illness hit the small family hard. His only son was serving in the army when his father fell ill, and the soldier’s wage was too small to cover the medical bills. Zhang’s aunt took a factory job herself to support her sick husband, making the difficult choice to leave him unattended during her working day. The cancer was to consume the family’s savings entirely, all spent in a fruitless effort to save his life. The patient struggled through his final days at home, getting up to see to his own needs until the day he finally collapsed while fetching a drink of water. He died later that day.

Zhang Junwei (whose name has been changed to protect his identity) believes that the cancer that ended his uncle’s life was caused by soil pollution, a subject so sensitive in China that Zhang himself is still afraid to discuss it openly. Zhang has just turned 40 and, like his uncle, has lived all his life in Jiangsu, near the lake. His village of Zhoutie is just five miles from Fenshui and less than 40 miles from the county town of Yixing, in the heart of the Yangtze Delta, today China’s biggest regional economy.

For more than 1,000 years, Yixing and its surrounding countryside was an important source of grain for China, celebrated in poetry as far back as 960 AD for its benign climate and fertile soil, and famous for the manufacture of a dense, brown pottery that is still highly prized in China as the ideal material for teapots.

But today Yixing and the land around it sit in China’s new industrial landscape. Since the 1990s, nearly 3,000 factories have been built on the once-beautiful shores of the lake. The chemical boom made Yixing one of China’s richest county-level towns, with a GDP that reached 106.6 billion yuan (US$17.06 billion) in 2012.
It is also still an agricultural area: the road from Fenshui to Zhoutie runs between flat, regular fields of vegetables, these days more profitable crops than grain for farmers who live close to urban markets. But many local farmers have given up eating the crops they grow. They know that their vegetables are planted in soil polluted with cadmium, lead and mercury, heavy metals that are dangerous to human health. Zhang confessed that he rarely eats local produce either. “There’s too much soil pollution,” he said.

Soil pollution has received relatively little public attention in China. Despite the fact that it poses as big a threat to health as the more widely covered air and water pollution, data on soil pollution has been so closely guarded that it has been officially categorised as a “state secret”. Until recently the Chinese government also resisted media efforts to draw attention to local cancer epidemics in China’s newly industrial areas. It was not until February 2013 that the Ministry of Environmental Protection (MEP) finally admitted that “cancer villages” existed in China, and released a list that included the area around Lake Tai and the villages of Fenshui and Zhoutie. Some civil society experts have estimated that there are 450 cancer villages in China, and believe the phenomenon is spreading.

The story of the cancer hotspot of Yixing is characteristic: in the rush to develop that engulfed China from the 1990s, local officials were eager to invite factories and chemical plants into the area, and their already weak environmental controls were often disregarded entirely. “Government officials just care about GDP,” Zhang complained. “They were happy to welcome any polluting firm.” So, for a time, were the villagers who found jobs in the new factories.

Unprocessed industrial wastewater discharging from the factories in Zhoutie Town has caused excessive levels of cadmium found in the river silt (Image by Wu Di)

The first real signs of the troubles to come were in Lake Tai itself, and were the subject of a long campaign by another resident of Yixing township, the fisherman turned environmentalist Wu Lihong. In the early 1990s, Wu grew worried about the deterioration of Lake Tai’s once famously pure waters. He organised a local environmental monitoring group that he called Defenders of Tai Lake, to collect water samples from the lake and its feeder rivers.

For 16 years, Wu campaigned to draw attention to the lake’s declining health, despite harassment from local officials and police and, by appealing to senior government officials, he succeeded in forcing more than 200 factories to close. But his campaign abruptly ended on April 13, 2007, when he was arrested and later sentenced to a four-year prison term on charges of extortion and blackmail. The following month, the Ministry of Environmental Protection named Yixing a “National Model City for Environmental Protection”. Five days later, a toxic algae bloom turned the waters of Lake Tai into foul-smelling green sludge.

That episode, in the high summer of 2007, attracted international attention and was a major embarrassment for the national as well as the provincial government. According to the Lake Tai Basin Authority, more than 30 million people draw their drinking water from the basin’s 53 water sources. A Zhoutie local official admitted to the government newspaper People’s Daily that the algae bloom had caused a “water supply crisis”, and said the lake’s water...
**NEWS FLASH**

“looked like soy sauce”. The authorities finally acted.

At the end of 2006, Yixing had been home to 1,188 firms producing chemicals. By October 2013, after six years of “rectification”, 583 had been closed down, merged or reopened as other types of business, as were 104 chemical plants in Zhoutie and 57 in neighbouring Taihua township. In late 2013, Yixing started a new round of chemical industry clean-up, with plans to deal with an additional 52 chemical firms over the next two years.

It all came too late for the campaigner Wu Lihong: he has now completed his prison term and his wife and daughter have moved overseas, but Wu himself remains subject to restrictions, including a ban on talking to the media. His harsh treatment is a reminder to other villagers that environmental activism carries a high cost.

Pollution remains a highly sensitive subject in the district. Most interviewees were too frightened to give their names, worried about how local officials might react. Others complained that official secrecy about pollution meant that they could not discover what dangers Zhoutie’s toxic legacy might pose to their own health and that of their families. Zhang Junwei recalled that, when the pollution was at its worst, even people’s sweat was discoloured. “Several of my relatives died from cancer very young,” he said.

Although the local government has now closed the worst of the factories, the pollutants those factories had released in their wastewater or sludge ended up in the soil, and the toxic waste from those polluting years continues to threaten the health of the people of the area and beyond.

Zhang Junwei and villagers like him are well aware that cancer rates in their district have risen, and they suspect that pollution is the cause. They say the number of cancer victims started to increase 10 years ago, when local farmers began to fall ill and die. Their suspicions were well-founded: when crops are grown in soil contaminated with cadmium or other heavy metals, the grain absorbs the toxins. But even today, despite this awareness of what pollution can do, local farmers have little choice but to continue to plant: these are families that reaped no direct benefit from industrialisation and still have few alternative sources of income. The poorest still eat locally produced food, knowing it is contaminat-

Establishing a clear connection, however, between pollution and cancer is scientifically challenging. At Hohai University, in Jiangsu Province, Chen Ajiang, a sociologist who heads the university’s Institute of the Environment and Sociology, admitted that the link between pollution and cancer is extremely complex, and it is difficult to pin down cause and effect.

In 2007, professor Chen won a government grant to study the interaction of human and water environments in the basins of Lake Tai and the Huai River. For five years, he and his four researchers carried out field studies in the provinces of Henan, Jiangsu, Zhejiang, Jiangxi and Guangdong, looking for evidence of the health impacts of water pollution. Professor Chen believed that pollution-related illness was damaging economic development, keeping villagers in poverty or driving them away from their native villages altogether. Although he admits that the medical world has not yet identified an undisputed link between pollution and cancer in the villages he studied, his team established beyond doubt that cancer villages exist and that the lives of those who live in them are severely impacted.

The pollution that chemical factories released in gas and sludge, and in the wastewater they discharged into Lake Tai and other local waterways, has now accumulated in the surrounding soil, but the govern-
ment has been reluctant to acknowledge the scale of the problem: in April, 2013, the Ministry of Housing and Urban-Rural Development awarded Zhoutie a “Habitat Environment Prize”, an award, like the accolade given to Xining, that seems out of tune with the real state of Zhoutie’s environment.

The use of unprocessed wastewaster for irrigation has caused cadmium rice crisis in the local area (Image by Wu Di)

In April 2013, the Jiangsu Geological Survey published part of a report that showed that heavy metal pollution in the Wuxi, Suzhou and Changzhou areas has increased continuously since 2004, with once isolated spots of pollution from cadmium and mercury now expanding and merging to form larger, continuous areas. The report, New technologies for monitoring and preventing heavy metal pollution resulting from urbanization, revealed that between 2005 and 2011 increasing levels of cadmium were found at 37.5% of the sites sampled, with average increases of 0.03 milligrams (mg) of cadmium per kilogram (kg) of soil. At its highest, the annual average increase was 0.2 mg.

Continuous monitoring revealed an escalating pattern of pollution: in one unspecified area, researchers reported, cadmium levels higher than 0.4 mg per kg of soil were found only in relatively isolated patches in the land surrounding industrial development. But by 2012, large stretches of nearby farmland were polluted to the same levels, and rice and wheat produced in the area were contaminated.

It also described one case -- later identified as the township of Dingshu, 18 miles to the southwest of Zhoutie -- where, due to a cluster of township enterprises that were dumping their waste, cadmium levels in the river silt had reached 1500 mg per kg, and that rice produced on nearby land was contaminated with cadmium to levels of more than 0.5 mg per kg. China’s food safety standards rule that rice can contain no more than 0.2 mg per kg of cadmium, and the international limit is 0.4 mg per kg. Rice from Dingshu has long been in breach of those limits.

Dingshu is the centre of Yixing’s ceramics industry, home to many glazed tile factories, teapot factories and clay workshops. Yixing’s stoneware is an important source of revenue, but the factories have also badly damaged the local environment and contributed to the area’s soil pollution. Yixing launched a crackdown on ceramic factories in early 2011, but by June 2013 only 300 had been fully shut down.

The area’s problems illustrate the high price China is paying for 30 years of rapid economic development and the risks China’s increasingly serious soil pollution poses to its food. Official estimates say that China produces 12 million tonnes of heavy-metal contaminated grain a year, with an economic cost of more than 20 billion yuan (US$3.2 billion).

China’s official approach to soil pollution has been characterised by secrecy and obfuscation. Even now, a picture of the scale and severity of the problem must be pieced together from disparate reports.

In 2010, for instance, a report on soil protection policy from the international expert body, the China Council for International Cooperation on Environment and Development (CCICED), warned that overall trends in China’s soil pollution gave no cause for optimism. Quoting China’s official 1997 Report on the State of the Environment in China, it characterised the pollution of China’s arable land as “rather severe”, with pollution affecting an estimated 10 million hectares of land. By the year 2000, according to that year’s report on the state of the environment, 36,000 of the 300,000 hectares of basic farmland monitored for harmful heavy metals were found to be more than 12% beyond the standard.

CCICED’s researchers were no more optimistic about China’s system of supervision and management of soil, finding that investment in soil pollution prevention and control was too low. They stressed that soil pollution reduces the quality of crops and recommended legislation to protect the soil and to control pollution, as well as improvement in China’s environmental soil standards.

There are now signs that the gravity of the soil pollution problem is belatedly forcing the Chinese government to begin to deal with a problem that has accumulated over many decades, and to reconsider its policy of pursuing economic growth at the ex-
pense of the environment. In July 2007, the Ministry of Land and the National Bureau of Statistics launched a nationwide soil survey. It was completed in 2009, but partial results were not published until December 2013. In April 2014, the government released partial results of a second soil pollution survey, conducted from April 2005 to December 2013, and covering 630 square kilometres (243 square miles) of farmland. The survey reported that about 16.1% of China’s soil and about 19.4% of farmland were contaminated.

China has 135 million hectares of arable land in total, but the amount of available high quality arable land has been dropping due to advancing urbanisation and pollution. According to the recently released data, the government classifies more than 3 million hectares of arable land as moderately polluted. How much of that is contaminated with heavy metals is still not clear, though in 2011, Wang Bentai, then chief engineer of the State Environmental Protection Agency (now the Ministry of Environmental Protection) said that 10% of China’s arable land is polluted with lead, zinc and other heavy metals.

Rising public concern about the impacts of pollution have begun to force a change in government attitudes, but changes at the top can take some time to percolate down to lower levels of government. In November 2013, delegates to the Third Plenary Session of the 18th CPC Central Committee – an important party meeting – adopted a key strategy document that set out the government’s priorities for the immediate future.

The document, prosaically entitled Decision on Major Issues Concerning Comprehensively Deepening Reforms, promised that environmental protection would be given more importance in the performance evaluation of local and national officials, and that local officials would be considered directly responsible for pollution. Economic growth would no longer guarantee promotion for local officials. The government also promises to put in place the legislation and powers to allow polluters to be heavily punished, a promise that began to take shape in the new environmental protection law, approved in April 2014, which removed the caps that had kept fines for polluters low.

However, Zhuang Guotai, the head of the MEP’s Department of Nature and Ecology Conservation, has said that cleaning up soil pollution is a difficult and lengthy process that will require huge investment. In some cases, he explained, the pollution the ministry had identified in soil samples could be traced back decades: pollution from the pesticide benzene hexachloride, for instance, a substance banned in the 1980s, was still in evidence.

Mr Zhuang promised that an action plan to deal with soil pollution will pull together both central and local government and businesses, using market mechanisms to promote soil restoration, with rewards systems in place to encourage public participation. A new law on soil pollution is also promised. But soil remediation is expensive and complex, and there are no easy answers to a pollution nightmare that has brought early death to the afflicted villages, reduced harvests and rendered much of China’s home-grown food toxic.
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