

## Farm visit

# China's new entrepreneurs

If an eastern German farm has to negotiate with a few hundred landlords, this is already seen as a challenge.

**Jin Zhengi, manager of the 1500 ha Jinxinnongye farm on the outskirts of Beijing,** has 12,000 people to deal with. »To wrap up all the rental agreements we need about three weeks every year,« he says. But if any one period of time in the year represents the move forward for China's agricultural, then it's these three weeks.

Up until 2008 renting arable land wasn't allowed. But relaxing this regulation has brought new impetus to rural entrepreneurial activity. Before, the »village collective« – often enough in the form of corrupt functionaries – decided on how the areas were to be farmed.

A lot would be more transparent and simpler if the land belonged to its farmers. It could then serve as security against loans. Buying land is possible nowadays, but only for townfolk wanting building sites. On the other hand there's no social market economy in China to be found – just naked predatory capitalism. And this would doubtless mean that farmland on a free market would soon become a speculation object, just like buildings nowadays – another factor behind the overheated economy. After all, there are few other opportunities for private investment.

**The symbols on Jin's business card** are an ear of grain and the head of a sheep and

a cow. These represent the main enterprises on this farm with its payroll of 35. The farmer started in 1983 with sheep and feeding cattle. 80% of the 8,000 sheep produced annually are slaughtered on the farm. The 3,000 cattle finished annually are exported to Hong Kong initially. Main crops: wheat and maize following each other in a single year. The talk is of 6 to 7 t wheat and 7.5 t maize. One can't take the yields at face value, but the fields can be irrigated and the water is free. Each crop gets 375 kg N/ha.

**Farm manager Jin hasn't a lot of experience in arable farming.** Where could he have learnt? Agricultural students advise him. But Jin knows all about efficient production. On the farm, workers are just being instructed on a new direct drill (a licensed product from

John Deere). It's a six-rower and can be operated with the output of the middle-class tractors that form the backbone of mechanisation, even on the larger farms. Despite amalgamation of strips, the fields on the land around Beijing are still relatively small. American or Russian working widths wouldn't get very far here, and labour costs so far aren't a crucial factor. The 15 combine harvesters with their 3-row maize heads are Chinese-made. At first glance they look like western machines from the 1980s, but their type plates show they're 2009 products. If you speak with Chinese about precision farming they don't think of site-specific applications or RTK positioning. But instead they see the concept as a way out of the nowadays still-usual wastage of farm inputs. The principle »many help many«



Produced in China – these combines are 2009 models. 2009 wurden diese Mähdrescher in China gebaut. Cette moissonneuse-batteuse a été construite en Chine en 2009.



Starting 2008, Jin Zhengi has built-up a 1500 ha arable farm on the outskirts of Beijing. Jin Zhengi hat seit 2008 am Stadtrand von Beijing einen Ackerbaubetrieb von 1500 ha aufgebaut. Jin Zhengi exploite depuis 2008 1 500 ha dans la périphérie de Pékin.



machines in this category – then the makes involved are struck off the subsidy list.

**China wants to access western standard mechanisation**

as quickly as possible and used here are joint ventures with foreign manufacturers. But caution is required because the firms from outside could find themselves being shown the door in a few years, as soon as the domestic industry has control of the required know-how. But nothing works without a Chinese partner. »As in Russia you have to deliver products from domestic production. Otherwise you do not receive certification, the basis for subsidisation and credit to the buyer,« explains Dr Franz-Georg von Busse, CEO of Lemken. The German company cooperates currently on sales with Foton-Lovol, one of the largest tractor manufacturers in China. As from 2012 Lemken will also be assembling machinery in China. »For the big farms in the north there is no domestic-made machinery available«, he adds.

The degree of mechanisation differs very strongly depending on crop, labour and region. Even at the end of 2009 only a total of 49%

farmland in China was cultivated, sown and harvested by machine. This is expected to reach 70% by 2020. Tractor ploughing is done on 64% of cropland. Respective figures for sowing and harvesting are 40 and 37%. Mechanisation in wheat is put at 89% and 55% for rice and maize. But in many poor mountain provinces up to 95% is still handwork.

**Advances in mechanisation are also associated with the expected dramatic change in available labour**

on the land. It's estimated that rural population, today put at around 800 m, will sink to 400 m in 30 years. Then, there simply won't be enough labour. Urban job opportunities help even now: Jin Zhengi wouldn't have been able to collect 1500 ha farmland without the vicinity of Beijing giving other employment possibilities for the former farmers. New functionaries will be taking over China's leadership in 2012. Will the rural reforms then continue? Or maybe roll backwards another step? China wouldn't be China if this question could be answered in advance.

◆ Thomas Preusse

is not yet out of the mindset. The degree of environmental pollution – including that coming from agriculture – is enormous.

**The state invests a lot in better mechanisation.** Jin Zenghi says that his machinery was bought without further ado with borrowed capital and state subsidies. This is remarkable because up until now there have been hardly any functioning credit agencies for farming, a situation

representing one of the biggest barriers to rural development. Lack of credit is why, outwith the large state farms, most machinery is still shared between a number of farms. Subsidies for machinery depend on the type and quality of the technology. For instance there's more money available for direct drill machines and special arrangements for helping farm contractors tool-up. But where quality is poor – and there are plenty

● **Neue Technik plus neues Bodenrecht, das könnte im kommenden Jahrzehnt die Erfolgsformel für die Landwirtschaft in China sein. Effizienz ist nötig, denn überall zeigen sich Grenzen des Wachstums.**

● **De nouvelles technologies et un nouveau droit foncier pourraient devenir la recette du succès de l'agriculture chinoise dans la décennie à venir. Une hausse de la productivité est nécessaire, car les limites de la croissance apparaissent partout.**



Chinese are no longer confident about their own milk production following the melamine scandal.

New Zealand has stepped into the milk supply gap, delivering almost half the demand. Other suppliers are France, Germany and Australia. For the coming year all signs indicate that sales potential for dairy products will be good, with domestic milk production recovery from the melamine disaster still comparatively slow.

**No country produces as many pigs per year as China.** Every second pig on this planet is reared and fed there. Pig meat production prognosis for 2011/12 is 52 m t and this will be completely processed and consumed within the country. No one knows how pig meat consumption will develop in China. Will it increase? Or will current consumption levels simply be maintained? Maybe demand might even drop through the changing eating habits of young people in an otherwise rapidly ageing population.

**Directly linked to pig feeding is Chinese demand for soybeans and maize.** The priorities are clear as far as soybeans are concerned. While rice and wheat growing areas have been expanded, the annual bean production stagnates at 14 to 15 m t. The current financial year's

Imports

# The demand for more soya, maize and milk

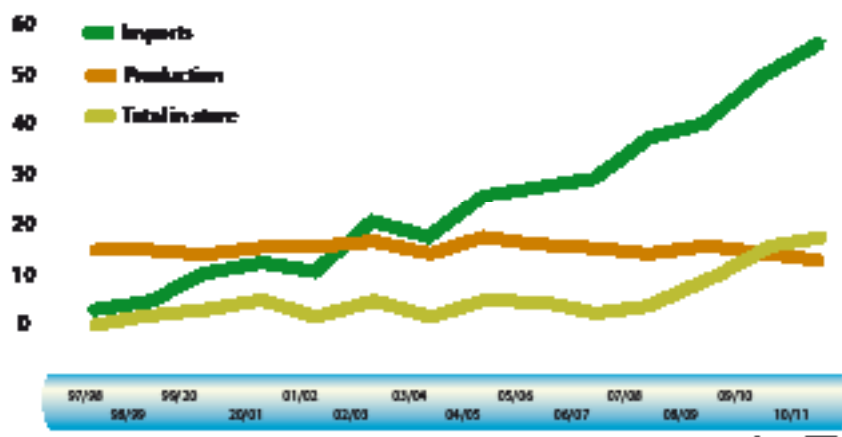
China isn't just an industrial giant, it's also a huge agricultural producer. From rice, maize, wheat and potatoes through to pig meat, the country is the world's number one producer. But it is rarely seen selling such products on world markets. Instead, continuously growing production is channelled by the leaders of this state towards maintaining self-sufficiency for the billion-strong population. Everything else, e.g. feed production, is secondary. This explains why expansion of wheat and rice production manages to keep up with demand while soybean output stagnates, with the soaring demand for this feed protein source being met from the world market. With maize, too, the beginnings of import dependence can be now be seen. Apart from these crops, there appears to be few areas where strongly

growing import requirement is reported for China.

**Milk production: still recovering.** Chinese dairying still suffers from the aftermath of the great melamine scandal in 2008. By the following year, domestic milk production had crashed by 18%

and even yet the branch has not recovered. Milk per capita consumption is relatively low at 25 kg/year. Milk and its products are expensive and mainly bought by well-off urbanites adopting western consumption habits. Imported milk sells in Beijing for 2 €/l and more. Many

Soybean imports are rising (m t)



import tally is expected to reach 58 m t, mostly from Brazil and the USA.

**For a long time China was a net exporter of maize.** But due to the latest expansion of pig production, maize exports from China stopped in 2008 and imports then steadily increased. Based on estimates by the US Grains Council a record 7.4 m t will be shipped in this year – five times that of last year. In fact, Rabobank expects China to be importing 25 m t maize per year by 2025 which means the country will overtake Japan as the world's largest importer.

**For grain in total, Peking strives for annual production** of at least 540 m t. This target is certainly achievable. Many analysts, however, view Chinese agricultural production as a »black box«. The figures inside prove almost impossible to verify. Even Chinese specialists are said to regard official grain crop figures as too high. The Peking government awards grain store operators a premium of 75 Yuan (8 €) for every stored tonne. This might well result in somewhat exaggerated reports. Similar scepticism is voiced by many market watchers over the by now almost annual announcements of new record harvests.

◆  
Markus Wolf

● Weizen und Reis produziert China selbst – für die Menschen.

Mais und Sojabohnen werden importiert – für die Schweine. Denn die Veredlung wird rasant ausgebaut.

● La Chine produit elle-même le blé et le riz dont elle a besoin.

Elle importe du maïs et du soja pour alimenter ses porcs. Car cette branche de la production connaît un fort développement.

## DLG's presence in China

Since the opening of its first China office in 2007, DLG, the organiser of Agritechnica, has greatly extended its network in the country's agricultural sector through DLG International. This organisation covers all fields in both the agricultural and food sectors - from machinery and technology, to bioenergy, crops and livestock farming.

**DLG AgrotechService, a subsidiary of DLG International,** has also organised a series of successful events addressing topics relevant to China's agricultural development, such as food safety, farming efficiency and pig and poultry production.

The Beijing-based office, headed by general manager Leely Zhang, is also responsible for Chinese participation at Agritechnica which will see a record number of 80 Chinese companies exhibiting this year and four Chinese pavilions as well as visits by a 500-strong delegate team of Chinese farming experts. German agribusinesses operating in China, such as Lemken, Grimme and ADT, the German Cattle Breeders' Fed-

eration, are also working together with DLG International in China.

**DLG AgroTechService was appointed coordinator of the 2.5m € demo-farm project in Ganhe,** a bilateral Sino-German collaboration. Established in 2008, the demo-farm project combines German agri-machinery and farming best practices with Chinese land and personnel. The project has already produced several useful results for improving efficiencies in soil working, harvesting and seed selection. German partners include Claas, Lemken, Grimme and Rauch. Following this first successful collaboration a joint cattle breeding project has been planned showing application of German know-how and technology in improving Chinese cattle breeding. DLG AgroTechService also organises independent networking events for the agri-industry in China. This includes the BioEnergy-Expo, an annual bioenergy exhibition that began in 2009, and is held alongside the prestigious China Animal Husbandry Exhibition.



Leely Zhang (r), manager of the DLG office in Beijing talks with farmers  
Leely Zhang (rechts), Leiterin des DLG-Büros in Peking, im Gespräch mit Landwirten.  
Leely Zhang (à droite), responsable de l'antenne de la DLG à Pékin, en discussion avec des agriculteurs.