# Pork production – getting it right in China

***by Marc Broadbent, general manager, Hypor China, 402 McDonald Street, Regina, Saskatchewan, Canada S4N 6E1.***

Getting it right in China should mean simply sticking to time tested business processes. We seem to be able to do that in foreign markets like Brazil, Mexico and Ukraine. So where do we go wrong when it comes to China? There are many issues but the main difference is the market size.

Many of us see China's pork industry as the pot at the end of the rainbow and, in pursuing the dream, we become afraid that if we do not act fast we will miss the window of opportunity. So we begin to compromise.

Market timing certainly is a critical part of the internationalisation process, but remember, some of our competitors have been in place for 25 years and for a market the size of China, the window of opportunity will be much wider. If market timing is now then the window of opportunity could be 25 years.

If this is the case then can we slow down and implement a market entry using our good business sense?

Yes, if we miss this great deal today someone else will take it, but there will be other opportunities and as we learn more about Chinese business practices and culture, connect with the right people and adapt our products and services, then we can capitalise on the opportunities presented.

## China and the pork industry

In 2008 China was enjoying a period of very strong economic performance. Many economists did not predict that China would experience such rapid growth. Most focused on the Chinese economy and its isolation from the rest of the world while discounting the strength of a fast moving local economy.

Now, local economies are driving growth and attracting foreign capital investment.

Today, high growth rates and inflation are the major concern of the central government. With 50% of the world's pigs and the world's largest population with a huge appetite for pork, pigs and pork have become important in a social, economic and political context.

This has become more evident with recent disease outbreaks.

New strains of PRRS and PCV2 have caused severe losses in the breeding herd. This has put extreme pressure on the nation's pork supply, driving inflation to record breaking rates.

The local economy and the population has been the reason for the economic upsurge but without careful management the same success factor will become the cause of its downturn.

Pigs and pork will remain at the centre of China's political agenda and social cultural fabric for years to come.

Hypor has five years' experience in the China market. Firstly, through exporting breeding pigs and second by establishing local production and distribution via two joint venture farms.

There are three distinct periods for a start up in China:

- Phase 1. Market entry.
- Phase 2. Establishment, local production and distribution.
- Phase 3. Expansion, the market entry phase and the establishment phase where Hypor is currently working.

## Market entry process

For market entry the genetics company needs a representative office for sales and marketing, a suitable product with minimum product performance and quarantine space to import the pigs. The first step is a representative office with local marketing representatives to create business and government relations, attend trade shows and conferences, distribute marketing material and generate prospects for meetings.

Creating a support network is essential. Along the road you will encounter many useful contacts such as people from the Ministry of Agriculture, AQSIQ officials, embassy, local and international NGO's and retired consultants.

In the beginning one connection leads to the next and the total network becomes your personalised network of influence – a central concept in Chinese society.

Prospects and customers come via the network of supporting businesses, government and associations. In China, developing this network is the starting point for success.

Next, you need to offer breeding pigs that meet the local market needs.

Hypor's Large White dams are characterised by good reproductive traits and mothering ability, but more importantly, they are a hardy sow that are easier to manage in variable environments. The resulting hybrid gilt is robust, easy to manage and able to wean large litters of heavy piglets with efficient feed conversion and fast growth rates, resulting in uniform groups of slaughter pigs.

To date, Hypor has responded to market demand by supplying Duroc terminal sires. Durocs are sought after for reducing days to market and increasing finishing weights and carcase weights.

They also add good characteristics for quality and taste. The last 10 years of China's hog industry development have been more focused on pure breeds than on overall efficiency of pork production through crossbred schemes with specialised dam and sire lines.

These lines deliver better overall efficiency than uniform pigs with good carcase meat and meat quality. Certainly, the emerging middle class

*Table 1. The effect of average daily gain on revenue and profit.*

| Start weight (kg) | Start age (days) | Av. daily gain (g) | Age at slaughter (days) | Slaughter weight (kg) | Carcase weight (kg) | Rev per pig (RMB) |
|---|---|---|---|---|---|---|
| 35 | 70 | 1,000 | 155 | 120 | 96.0 | 1,152 |
| 35 | 70 | 900 | 151 | 108 | 86.4 | 1,037 |
| 35 | 70 | 800 | 146 | 96 | 74.9 | 922 |
| 35 | 70 | 700 | 140 | 84 | 63.8 | 806 |
| 35 | 70 | 600 | 132 | 72 | 54.0 | 691 |

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and recent interest in food safety and quality, brings additional advantages for well organised, integrated production systems.

Hypor is well positioned to deliver on the demands of pork quality with expertise meeting the final product needs of a broad range of markets covering the extreme fat markets of Japan to the extreme lean markets of Germany and Belgium.

As China's processing industry develops slaughter pigs, using Hypor terminal sires will return premium payments and deliver the right meat quality requirements.

For the immediate future, Hypor recommends a range of terminal sires including Duroc, White Duroc/Yorkshire Synthetic and Pietrain, addressing efficient production of meat for producers and improved carcase quality for processing and consumption.

## Limitations of quarantine

The most limiting factor is arranging quarantine for import of your breeding pigs. All live animal imports to China must come through one of four quarantine stations. The competition for these spaces is high.

Customers line up for quarantine and the process can take more than a year. Now with many customers on the ground Hypor applies for quarantine space on behalf of our customers.

This assumes that your country has a bilateral agreement in place. Canada and China have developed the 'veterinary health certificate export of swine to the People's Republic of China', a protocol for the export of swine from Canada to China. Each breeding company must meet and follow the articles of the protocol.

Hypor has developed biosecurity protocols that have resulted in the development of one of the highest health pig breeding facilities in the world.

Hypor herds have been able to maintain over time a negative status for porcine reproductive respiratory syndrome (PRRS), Mycoplasma hyopneumoniae, Antinobacillus pleuropneumoniae (all serotypes) (APP), transmissible gastroenteritis/porcine respiratory coronavirus, swine influenza, (H1N1, H3N2, H1N2), leptospirosis, brucellosis, Aujeszky's disease, atrophic rhinitis, swine dysentery and Actinobacillus suis.

This together with Canada's national status of being free from diseases such as foot and mouth disease, vesicular stomatitis, swine vesicular disease, African swine fever, classical swine fever and enterovirus encephalomyelitis, places Hypor in an unique international trade position.

Hypor has a clear competitive advantage in this regard. Even further, Hypor has used this competitive edge to shape protocols in the bilateral agreement to yield further advantage and develop the import-export process.

We have negotiated derogations to the vaccination protocols and pre-embarkation quarantine giving significant operational and biosecurity advantages.

Pricing is an important and difficult decision on every single import in this phase. The Chinese are formidable negotiators. We have lowered our price to get the product in and create awareness. We have done this in a tactical way to generate value demand for our breeding pigs.

The window of opportunity on exports is assumed to be very narrow. Five years ago we observed export prices in decline and assumed government restrictions on genetic material would close or severely limit future opportunities for export.

Now, looking forward and noting the size of the market and state of maturity, I think we have a fairly long run on the export market opportunities.

***An early Chinese litter.***

Market size is one of the key indicators to us in the pig breeding business. There is more than enough good genetic stock from various sources in China and as Hypor enters into the establishment phase we work to generate demand for our genetic programme and technical expertise including introduction of gene transfer technologies and production management processes.

This will lead to efficient business structures such as licensing and royalty payments for genetic progress in pork protein pyramids as opposed to just payments for pigs.

## Canadian identity

One of the key success factors for Hypor was the ability to leverage on our Canadian identity. The Canadian government had done a good job selling the Canadian brand.

Through development aid projects Canada had developed state owned breeding farms across China. Hypor, through its association with the Canada China lean swine project, was able to commercialise these development aid projects and leverage on 10 years of Canadian government investment. Through this association we were able to build local networks and establish a feeling of trust faster than usual, thereby saving time and money. This greatly enhanced our market entry.

## Know your customers

Selling genetics indiscriminately to a market like China with a history of disregard for intellectual property is one of the key barriers to entry for many genetics companies.

This means selling to the market and knowing those customers can be turned to structural contractual business over time and those that will become a threat.

Remember it is a big, immature market, many do not have the capacity to become a threat and the few that could become a threat will become obscure in the size of the market.

Contracts are difficult to develop sell and enforce at this stage, the key is that the pig business is a sticky business and once the company has proven the minimum performance criteria of the pig, all structural and non-structural producers become the future customers of the company.

Under contract or not breeding companies need to sell pigs to make the market entry and move to the next phase. This is a critical risk opportunity factor, which all genetics companies must assess on a case by case basis.

Hypor has enjoyed a comparative advantage exporting to China. China

***Developing key personal links.***


***Outside the unit.***

favours Canadian pigs and Hypor pigs sufficiently over competitor nations and competitors to give us a five year competitive advantage.

Despite impeding factors such as quarantine at US$150 per pig and shipping costs in excess of US$300 per pig, Hypor has enjoyed good margins. This is likely to continue for several years to come as the Chinese continue to pay for the perceived value of the imported breeding pigs.

Nevertheless, it must tail off eventually because, in essence, the market is flooded with imported genes and the market needs to come to realise that it is the technology or the breeding programme that is needed and not so much the pig.

In the market entry phase the key challenges are getting quarantine, and getting the scale of partners to cause a positive effect to give a good start to the establishment phase.

The creation of competition in this phase is the key issue for many genetics companies, but the sheer size of the market and time mitigates this important issue.

Language, culture, political and legal issues do not seem to impede the export phase but will become significant barriers in the next phase, the establishment phase.

## Establishment phase

The establishment phase is the most difficult step for most genetics companies. It is about partnering and establishing local distribution. The market entry phase pays its own way with sales and revenue and high margins, creating the excitement and the opportunity to leap into investment.

However, this is a difficult step where the plan can break down. The main reason is traditional company pressure to deliver revenue and profit on investments over short periods, which compromises our traditional business processes and leads to possible failure.

Secondary impeding issues such as culture, language, and legal, political and financial become critical issues to manage in the establishment phase.

Partner identification is at the core of this phase and requires a keen understanding of Chinese culture and business practices. Our good business acumen dictates a structured approach to due diligence on the market and evaluation of several business partners before making a decision to invest.

Even with good due diligence, an investment strategy in China is a high risk affair and needs to be treated as such. As a result this step often sees the failure of many of the best companies with the wrong partner, in the wrong market, unable to go the final mile.

This is the major reason for failure and the main point of focus for 'getting it right' in China.

This phase is particularly difficult if your Chinese partner has limited exposure to business (former SOE) and to international business and standards. Partnering in the best of situations is a complicated step. Make sufficient investments in choosing the right partner.

Today, the Chinese companies looking for genetic partnerships with foreign breeding companies are usually large scale integrators, some having already moved from feed to poultry production and are now looking to diversify into pig production and processing. They are looking to purchase and sell breeding stock and produce pigs for their own systems.

There are also a large number of speculators who think they can entice foreign breeding companies into business, which then gives them access to local government land and central government funds.

I would strongly suggest that you avoid companies that have never owned a pig or an associated agriculture business of scale. It is important to connect with serious Chinese producers and/or integrators in the market.

I know that this is very difficult in the early days with company pressure for results that enable the next step.

At Hypor we made some marginal decisions with respect to customers in the beginning. The backward nature of the market means that there are many newcomers to the market. However, there are serious and experienced pig producers who are ready to work with foreign pig breeding companies.

When China ended the era of communism and state owned enterprises, the new centrally planned government enacted a policy of working with internationals through joint ventures. The policy was used to attract capital, technology and know how. For internationals, joint venturing is often not the preferred business structure of the foreign entity.

We prefer to move through a hierarchy of strategic alliances from exporting to licensing, to franchising to joint venture.

The level of interaction and co-operation in a joint venture is high. Internationals resist joint ventures realising the conflicts of culture, language and incongruent business practices and the Chinese partners insist on the joint venture. It is the policy. This compromise can be the start of the end for many internationals.

***Table 2. The effect of feed efficiency on revenue and profit.***

| FCE | Start weight (kg) | End weight (kg) | Total feed (kg) | Cost of feed (RMB) |
|---|---|---|---|---|
| 2.1 | 25 | 120 | 199.50 | 438.90 |
| 2.2 | 25 | 120 | 209.00 | 459.80 |
| 2.3 | 25 | 120 | 218.50 | 480.70 |
| 2.4 | 25 | 120 | 228.00 | 501.60 |
| 2.5 | 25 | 120 | 237.50 | 522.50 |
| 2.6 | 25 | 120 | 247.00 | 543.40 |
| 2.7 | 25 | 120 | 256.50 | 564.30 |
| 2.8 | 25 | 120 | 266.00 | 585.20 |
| 2.9 | 25 | 120 | 275.50 | 606.10 |
| 3.0 | 25 | 120 | 285.00 | 627.00 |
| 3.1 | 25 | 120 | 294.50 | 647.90 |
| 3.2 | 25 | 120 | 304.00 | 668.80 |
| 3.3 | 25 | 120 | 313.50 | 689.00 |
| 3.4 | 25 | 120 | 323.00 | 710.60 |
| 3.5 | 25 | 120 | 332.50 | 731.50 |

## The way forward

Our joint venture partners are diversifying from feed and poultry production into pig production and processing and in exchange for technology and know how they offer us land, local access and market access. For the Chinese partner establishing a new line of business is not so easy.

Their rationale for the joint venture is clear. They want us invested and committed to establishing their new line of business.

Implementing and managing the technology and know how is easy, the challenge is the social, political and cultural issues that are testing the strength of the relationship and the long term viability of the joint venture.

Almost all our prospective partners propose equity joint ventures where the foreign partner is fully invested.

First it is the policy, but more and more Chinese businesses realise that merely offering 'access' attracts a wide range of breeding companies for comparison and then hard negotiation resulting in the signing ceremony.

From there the hard work begins for the international. Establishing the

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pigs, the breeding programme, training and managing and maintaining the relationship.

The major challenges are language, culture and incongruent business practices. Then comes the decision to manage with local managers, expatriate managers or some combination.

For this business decision remember to use your good business judgment, if you are the majority owner then you will have to manage the bulk of the work, the production start up and the on-going operation.

You will need to protect your investment with good expatriate management; a dedicated and committed local team integrated into the global organisation in all aspects, financial, breeding, technical service and marketing.

It is not easy to get the value out of the joint venture, managing the partner and delivering on the promises of the joint venture.

Access to China has changed dramatically since the days of organised tours and foreign exchange certificates.

Foreigners are now able to apply for resident's permits and establish wholly owned foreign enterprises (WOFE). International organisations can easily lease land and access local markets by building local networks. It is a big step for most foreign nationals but if you have local experience, can understand the market and local politics, then a WOFE is an attractive investment vehicle to be considered. Alternatives are available.

## A contractual joint venture

Hypor's international standard is a contractual joint venture (without equity) or dealerships as we call them. That means Hypor will put its breeding stock into production pyramids at a reduced cost, with future revenue stream based on production and sales.

Under the contract Hypor will grant the partner a licence to produce and sell grandparent gilts, production sows/gilts and terminal sires from great grandparent and grandparent Large White, Landrace and Duroc sows and boars.

Whichever business structure you choose at the onset, I urge you to get a good local lawyer and never leave any issue, however simple, unexamined.

The upfront investment in legal advice will more than pay for itself in the long run by mitigating the big costs of mistakes that become difficult to unravel in the quagmire of China's political economic systems.

Do not take short cuts with legal issues in China.

Under either scenario, the obligation of Hypor is to supply production expertise in planning of operations, supply breeding stock, operational start up including training and development of staff, operations manual, breeding manual, management guide, nutrition guide and technical service support throughout the partner's business.

***Assessing sow quality.***

Once the business structure is decided upon and all the agreements, licences and permits are secured. The next step is to establish the herd and the breeding programme.

The Hypor breeding programme is basically comprised of periodic transfer of genes using gilts, boars and/or semen and a match-mating programme. Data is collected and transferred to Hypor Canada on regular weekly intervals in order to calculate breeding values.

These breeding values together with the requested exterior traits are used for selection and breeding. The central breeding department then issues monthly and quarterly progress reports on genetic improvement and guides the programme.

Hypor provides technical service to all customers worldwide. For a production start up scenario the first year is the most critical. Hypor technicians are sent to China to work with and train local staff to ensure the farm reaches optimum productivity standards quickly.

The first step is a quality control manager to select breeding pigs upon arrival.

We usually ship extra animals to account for losses en route and warranty for non-reproductive animals.

On a successful shipment we can lose 3-5%, which will yield a more than adequate number of spares, and therefore, a good opportunity for selection to meet the original breeds and sex split.

Careful selection is focused on the number of boars in production to ensure a successful start up.

Next you need a technician to set up the sow management system and the breeding data interface, followed by a breeding manager to implement the first breeding cycle and a farrowing manager to implement the first farrowing cycle. Throughout the start up and for ongoing management we have a Hypor production manager on site for one week out of four working with the local farm manager and local production manager.

In addition, we have a minimum of two visits by a Hypor geneticist and two visits by a local consulting veterinarian alongside the Hypor veterinarian.

The major focus in year two and three will be to get multipliers and commercial farms under contract and develop a local technical service team that will provide technical support and advice throughout the pork production chain, including multiplication and commercial production and processing as the pyramid grows.

Hypor and the partner will work together and develop a consultative approach with respect to pork quality requirements and targets with regular meetings to review product quality and market needs.

This is especially important for integrated protein systems with high performance requirements.

## Performance criteria

For product performance, our Chinese customers have similar minimum performance criteria mainly reproductive standards such as 11-12 pigs born alive, good weaning performance, including good milk production and able to wean large and heavy litters.

Selling to the larger integration, especially those with systems of scale, the sales effort becomes focused on the downstream business, the revenue and profit gains from increased growth rates, increased slaughter and carcase weights on millions of slaughter hogs per year.

If we assume that the progeny of local production sows crossed with local terminal sires grow at the rate of 600g per day and that Hypor production sows crossed with Hypor terminal sires could achieve growth rates of 900g per day, then with Hypor genetics and current slaughter price of 12RMB/kg, our partners could realise an additional RMB346 per pig (see Table 1).

This translated to a business of scale has huge financial benefits. For example, a system of one million slaughter pigs means an additional RMB350 million/year.

This is similar for cost saving traits such as feed efficiency. Table 2 illustrates the effect of feed efficiency on revenue and profit and the potential costs savings from gains in feed conversion efficiency.

If we assume that the FCE of local hogs is around 3.3 and hogs with Hypor genetics could achieve a FCE of 2.6 then our partners could realise a cost savings of RMB146 per hog or RMB150 million/year on a system of one million slaughter hogs.

## Conclusions

For foreign companies entering China, understanding Chinese language, culture and business practices are key to organising and managing in situations that do not always seem logical.

You have to be able to create a balance between predicting and controlling the outcome of your actions and agreeing to actions that can compromise your western reasoning.

When you are asked to make decisions that are against your own better judgement, your Chinese network and supporting relationships can help you take this leap of faith.

Secondly, foreign companies need to adapt quickly to the volume and price strategy and the productive process and leverage on the low cost promise of China.

In that scenario, foreign companies need to adjust their input/output strategy and deliver a good pig while minimising productive resources.

The key is to adapt your production programme to the China market so that you can effectively compete on price. Good genetic performance supporting farm level productivity is a mandatory prerequisite for entry.

However, body conformation, especially feet and legs and reproductive longevity are critical for long term success.

Most importantly, the pig must deliver on the genetic promise through increasing farm level productivity, often on solid concrete floors, in changing environments and under sub-standard management conditions.

In the end, remember that your best genetics are useless if you cannot connect with the market and adapt your programme. ■