China: Building Supply Chains in the Dairy Industry: The New Hope Group

Over the reform period, the non-state sector has emerged as the fastest growing and most dynamic component of the Chinese economy. It has grown at 20 percent per annum in the last 20 years, and has, since 1992, created 6 million jobs each year, or 75 percent of all jobs created. Despite the progress on reforms, a sizeable surplus of labor still exists in the rural sector and SOEs.

Private companies have been active in taking over and restructure failing SOEs, creating jobs in urban centers and better paying jobs in rural areas. The New Hope Group, one of China’s leading industrial conglomerates, is playing an active role in the efforts to address some of these employment challenges, particularly in the interior provinces of China. Founded in the early 1980s by 4 brothers in the Liu family, the Group is mainly engaged in animal feed, food processing, banking, real estate, chemicals and dairy businesses. The case study illustrates the novel approach of this privately owned group to the establishment of supply chain links in the dairy industry and its contribution to raising the incomes of poor farmers in Sichuan province.

The Chinese dairy industry: opportunities and challenges

China is a huge market for dairy products, given the currently prevailing low consumption levels along with accelerating demand. Average annual consumption of dairy products has almost doubled over the past five years to about 10 kg per capita, but is still only 10 percent of the global average of 100kg.

The Chinese Government attaches great importance to the development of the dairy industry. National policies have given the dairy industry priority status. Development of this industry is perceived by the central government to be a win-win situation for several reasons: (i) it increases the income of dairy farmers, and facilitates the development of agriculture and the social and economic stability of rural areas; (ii) it promotes the growth of the processing industry, which will add to the state’s tax revenue.

At the same time, the Chinese dairy is confronted with a number of challenges including (i) increased international competition following WTO accession; (ii) quality of dairy cattle and raw milk; (iii) weak disease prevention systems and a low proportion of animals being milked by machines; (iv) poor linkages between dairy cattle breeding and processing. In addition, the increase in manufacturing capacity, unless supported by corresponding increases raw milk availability, may result in sustained periods of low capacity utilization.

Nationwide market studies indicate that supply chain efficiency enhancement is the next pivotal point where top operators can differentiate themselves and find comparative advantages. In 2002, China produced about 12 m tons of milk. Average yield per cow is about 2,000kg, indicating relatively low productivity. Poor farm management, animal husbandry, and sub-optimal feed regimes account for the low quality and productivity.
New Hope Dairy: a novel approach to dairy farming

New Hope Dairy Group (NHDG) is one of the largest private sector companies in the dairy industry in China. New Hope was attracted to the promising growth prospects of the dairy sector, and moved into the sector with the acquisition of Sichuan Yan Ping Dairy in October 2001. It also acquired 11 state-owned companies in Southwestern, Eastern, Northern and Northeast provinces. Through these acquisitions, the company has established a leadership position in the dairy sector in its home market of Sichuan, as well as a prominent position nationwide.

Sichuan Yan Ping Dairy (SYPD) currently has three sources for the supply of raw milk: (i) approximately 5,000 household producers who travel up to 40 km to deliver the raw product to one of four collection stations. There is minimal refrigeration of the milk until it reaches the collection center; (ii) two large scale farms with up to 1000 cows; (iii) 4 collectivized mechanized milking facilities, such as Hong Xing Collective farm.

The collective farm is a relatively new concept in Sichuan province. The strategy of the NHDG is to encourage farmers to move towards a collective farm model in which all the cows are milked by machine. The Hong Xing Collective farm is a model, which the company has been replicating in Sichuan and Yunnan. Hong Xing Collective Farm is located in Hong Xing village, Liu Jiang Township, Hong Ya County approximately 60 km south west of the Yan Ping Dairy Processing Company.

The concept of a collective farm in Hong Xing was initiated with support from township and county governments by the village director, who approached a local builder in the area, to build the dairy facility. The builder supplied all of the capital required to build the structures. Only after the building was certified by the county’s Construction Administration Committee was he able to begin recuperating his investment. The village director is responsible for settling the debt with the builder by recruiting individual producers to purchase stall space within the barn at a cost of RMB1,200 / stall.

The collective farm is managed by a committee comprised of village members and managed by the village director. After producers have paid the RMB 1,200 RMB for stall space to the investor, it is owned by the individual. Within this space the cow owner assumes complete control over the management of his cows within the collective farm organization. Farmers live at their original homes and travel to the farm as necessary. Forage is gathered from their plots of land daily.

At the Hong Xing Collective Farm Model, all of the cows are milked using a pipeline milking machine system. All of the milking equipment and bulk tank at the collective farm is owned by the New Hope Dairy Cattle Company. A current service contract with the equipment manufacturer is in place to ensure proper operation of the milking units and refrigeration. Member of a collective committee, elected by the villagers, supervises the milking and keeps a record of the amount of milk each cow produces at every milking. This information is used to ensure each individual cow owner is paid according to the total individual milk production. After cooling, milk is collected by and at the expense of the Yan Ping Dairy directly from refrigerated milk tank daily. The milk is transported in an insulated tanker truck. Individual farmers are paid based on individual production records.

Results clearly indicate that the collective farm model enhances productivity and milk quality. A more scientific approach has been applied, as farmers have been trained in identifying health problems
with cows at an early stage and in taking appropriate preventive and medical treatment actions. The farmers in the collective farm have received training in farm management, animal husbandry, and optimal feed regimes. The milking by machines, and the refrigerated storage of the milk eliminates contamination and wastage as practically no milk is rejected by the milk collection centers. Because of better quality, the milk from the collective farm receives a 10c higher prices than milk from individual households.

In 2002, the annual per capita income of rural households in Sichuan Province was about RMB 2,900. Poverty is rampant in the province with no counties having a per capita income in excess of RMB 4,000, and 33 counties having a per capita of less than RMB 1000. The analysis of dairy farms at the Hong Xing Collective Farm reveals a net income of RMB 3,200 RMB per cow per year, which demonstrates the potential of dairy farming to generate income in rural Sichuan. Each individual farmer owns two or three cows on average. With the incomes from milk supply over a two to three year period, farmers have been able to build new houses.

Challenges and emerging lessons

The scaling up of the collective farm model has been successful in the Eastern and Northern parts of China, but has been somewhat slower in Sichuan’s Mei-shan county and in the Southwest. One of the reasons is that in these parts of China farmers are dispersed on a hilly terrain, which makes it less economical for them to commute to the collective farms. New Hope Dairy is examining the incentive structure of the collective model to see how this problem can be overcome.

It is therefore important to adapt approaches to the local circumstances. And in this context, working with the local community is critical. In the case of Hong Xing, the initiative was taken by the villages leaders who suggested an effective approach, which the private company in conjunction with the local authorities has been popularizing.

One important lesson from New Hope’s experience with building supply chains is the importance of working with stakeholders. NHDG is working with a large number of stakeholders to promote the concept of collective farms, including the Central Government, the Dairy Association of China (DAC), Provincial Animal Husbandry Bureaus, Provincial Science and Technology Departments, municipal and county governments. This approach allows for holistic solutions to the problems of milk supply chains.