

INDUSTRIAL RABBIT PRODUCTION AND KANGDA RABBIT PRODUCTION

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ABSTRACT

An industry or a company cannot develop well without a good policy support from the government. This presentation will address two issues, the industrialized rabbit production and the industrialized rabbit production of Kangda Group. Expanded rabbit production will increase healthy meat supply to meet the increasing meat consumption requirement in Asia, while reduce, in great extend, the fodder crop consumption by livestock industry, thus, alleviate the grain crisis pressure. Expanded rabbit industry will also provide jobs for the farmers and increase their income, and flourish rural economy. Increasing in the world rabbit meat production is 90% of the increase comes from Asia countries. Asian Rabbit industry plays a very important role in world rabbit production. Great majority of rabbit production in Asian countries are still micro and small scaled backyard farming, facing. constraints and problems, such as, limited capital, knowledge (technology), source of feed, management, high breeding cost and low quality and productivity, low risk resistance etc. which cannot meet the increasing demand for meat of developing countries. Qingdao Kangda Food Ltd is an integrated company involving rabbit breeding, processing ,researching and marketing. Kangda has now become China's largest leading rabbit production enterprise.

Key Words: Breeding, Industrial, Rabbit Production

In the name of the President of ARPA, and on behalf of the Executive Committee of ARPA, to extend our warm welcome to scientists and experts from WRSA and colleagues from Asian rabbit industry to attend this conference and also our sincere thanks to Indonesian Ministry of Agriculture as well as the Indonesian Rabbit Production Association for their effort in organizing this conference and their support to ARPA.

The theme of this conference is "Towards Small and Medium Industries of Eco-friendly Rabbit Farming" means that it has to empower rural economy through small and medium scale eco-rabbit industry .This issue is of great significance to the Asian developing countries. And it is also the objective of ARPA as stipulated in ARPA constitution, that is to facilitate and conduct the exchange of knowledge, experience, new technology and market information and promote international cooperation among rabbit breeders, processors, researchers, traders, institutions and organizations in Asian countries on rabbit breeding, processing, marketing, researching, experiments, with the aim to further promote rabbit breeding, processing and scientific research as well as rabbit meat consumption so

as to further develop rural economy, improve farmers' livelihood in Asian countries.

Since the founding of ARPA in 2008 during the Seminar on Organic Rabbit Production held in Vietnam. ARPA has conducted a series of activities around the theme to promote small and medium sized rabbit industry.

In September 2009, ARPA organized the first ARPA International Conference on Rabbit Production in Asia in Changchun China,

In June 2010, ARPA held the Sino-Indonesian Joint Seminar on Rabbit Production Cooperation in Qingdao, Sichun, China.

In July 2010, co-sponsored with Indonesian Rabbit Breeders Association and Indonesian Ministry of Agriculture, ARPA organized Asian Rabbit Workshop and Exhibition.

In November 2011, ARPA sponsored China (Kaixian) Rabbit Fair, Indonesian Rabbit Association send a delegation to participate the fair and conducted a field study on rabbit breeding.

In December 2011, ARPA held the second ARPA International Conference on Rabbit production in Asian, co-sponsored with the Ministry of Agriculture of Vietnam and The Rabbit Association of Vietnam.

In 2012, The Indonesian Delegation visited China and conducted technical exchange of China.

The ARPA activities had great influence in Asian countries, With the promotion of ARPA, Rabbit breeders in Malaysia and Philippines established their national rabbit association in 2009 and joined ARPA as group member.

We are glad to see that all our activities made contribution to the fast development of rabbit farming in member countries like Indonesia and Vietnam, their rate of expansion of rabbit farming is fast growing, interest of farmers and government on rabbit breeding is increasing. The present conference is just a prove for that.

All our achievement is due to the efforts of all ARPA members. I'd like especially mention that Dr. Yono, our Secretary- General. has made a great contribution to ARPA development in the past five years, I'd like to propose all of us to give a warm applause to Dr. Yono for his contribution to ARPA.

Dr. Yono asked me to give a introduction on the intensive and industrial rabbit production of Kangda Group. I must say that an industry or a company can not develop well without a good policy support from the government.

My presentation will address two issues , the industrialized rabbit production and the industrialized rabbit production of Kangda Group.

Rabbit farming has the most significant potential among all livestock husbandry. Expanded rabbit production will increase healthy meat supply to meet the increasing meat consumption requirement in Asia, while reduce, in great extend, the fodder crop consumption by livestock industry, thus, alleviate the grain crisis pressure. Expanded rabbit industry will also provide enormous jobs for the farmers and increase their income, and flourish rural economy.

Since late 20 century, more and more developing countries, especially, Asian countries, achieved fast development in rabbit production According to FAO statistics, the world rabbit meat production increased from 1269575 tons in 2000 to 1712856 tons in 2011, an increase of 35%. At the same time ,the rabbit meat production in Asian countries

increased from 428891 tons in 2000 to 829603tons in 2011, increased 94%.

Table 1. Rabbit meat production of the world and Asia 2000-2011

Country	2000 (tons)	2011 (tons)	Increase (%)
World total	1,269,575	1,712,856	35%
Asian countries	428,891	829,603	94%
Asian shares in world total	33.8%	48.4%	

Source: FAOSTAT (2012); Livestock Primary Production

We can see 90% of the world increase comes from Asia countries, which shows Asian Rabbit industry plays a very important role in world rabbit production. But we had to realize that there is still a great gap between Asian countries and the developed countries in rabbit production, great majority of rabbit production in Asian countries are still micro and small scaled backyard farming, facing, constraints and problems, such as, limited capital, knowledge (technology), source of feed, management, high breeding cost and low quality and productivity, low risk resistance etc. which cannot meet the increasing demand for meat of developing countries. How to solve these problems? FAO gives us the right answer.

FAO (2013) stated in its article "world agriculture; towards 2015/2030" that, in order to meet the increasing demands for meat consumption, a continued shift in production methods can be expected away from extensive grazing systems and towards more intensive and industrial methods. More industrial and commercial forms of production will gradually increase in both number and scale. The development of Chinese rabbit industry proves that it is the best solution for the rabbit industry of developing countries to shift from backyard production towards intensive and industrial methods.

The development of intensive and industrial rabbit farming concerns many important issues, such as fine breeds selection system, disease prevention system, standardized breeding and production, quality traceability system, pasture

planting, feed processing, slaughtering and processing, new product developing and marketing, *etc.* These are the fundamental elements to ensure a sustainable, efficient, high productive production. It is absolutely impossible for scattered household rabbit breeders to meet these requirement. The only way is to support and foster industrialized leading enterprises who will play a leading role in organizing numerous family breeders to form a benefit-sharing, risk-sharing community and implement within the community, standardized, intensive, scaled breeding and production so that to achieve “quality, safety, efficiency and high productivity” rabbit production.

The characteristics of China’s industrialized management of agriculture is an integrated farming operation. It takes the forms of “leading enterprises + agricultural cooperatives + farmers”, with the leading enterprises supported by the government as the core of the implementation of agricultural industrialization, This forms of operation enables the farmers to be organized in planting and breeding operations and in marketing ,reducing their risk in farming and marketing. improving the overall agricultural efficiency. In last century, like most developing countries. China’s agricultural operation was also based on individual farmers. From late 1990s, Chinese government started to implement the strategy of agricultural industrialization, under the policy support from the government , many leading agricultural enterprises and farmer’s cooperatives emerged. China’s rabbit industry entered a fast developing stage. Before the mid-1990s, China’s rabbit production relied solely on rural farmers’ sideline production,

with the annual rabbit meat production hovering at 100,000 tons. Since late 1990s, with the fast growing demand for rabbit meat in domestic and foreign market, and encouraged by government’s policy for agricultural industrialization, leading companies engaged in integrated operation of rabbit breeding, processing, research and marketing as well as rabbit farmers cooperatives, rabbit production associations emerged in rabbit producing provinces. China stepped in the stage of intensive and industrialized rabbit production and this change of rabbit production mode resulted in fast growth of rabbit meat production.

From FAO statistics, we can see that China’s rabbit meat production in 2011 is 620% increase than 1990, and 85% than 2000. During the same periods, the world rabbit meat production increased respectively 82% and 34.8%, In 1990, China’s rabbit meat production accounted for 10 % of the world total, In 2011, China’s production accounted for 40% of the world total. This figure shows the industrialized rabbit production brings about fast growth of the rabbit production.

Qingdao Kangda Food Ltd. has been developed along with the process of China’s agricultural industrialization, and witnessed the industrialization progress of China’s rabbit industry. Qingdao Kangda used to be an export-oriented trading company, with limited processing facility to process rabbit meat with rabbits purchased from individual farmers. Since 2003, Kangda started the transformation from a trading and processing company into an integrated company involving rabbit breeding, processing ,researching and marketing.

Table 2. Rabbit meat production of the world and China 1990-2011

	1990	1995	Increase (%)	2000	Increase (%)	2011	Increase (%)
World	938,716	1,099,557	17.1	1,269,575	15.4	1,712,856	34.8
China	96,000	268,000	179.0	370,000	38.0	685,000	85.1
China share in world total (%)	10.0	24.3		29.1		40.0	

Source: FAO statistics (2012); Livestock Primary Production

Within several years, Kangda has now become China's largest leading rabbit production enterprise with integrated production of rabbit breeding, commodity rabbits breeding, research, feed production, slaughter and processing, marketing and investment. Kangda established proprietary rabbit breeding base and processing facilities in China's four main rabbit producing provinces - Shandong, Jilin, Hebei, and Sichuan Province, its' proprietary breeding farms with more than 10 million rabbits raised and processing plants with processing ability of 20 million rabbits annually. Kangda has established 50 tons rapid cooling facility, twenty thousand tons cold storage capacity and 101 EU registered rabbit breeding farms checked and approved by the EU official experts. In addition to its own breeding farms, Kangda adopted the approach of "company + farmer's cooperatives + farmers", in cooperation with local government and farmers, more than 200 professional rabbit breeding villages (rabbit breeding community) established around kangda's facilities. Kangda provides standardized management to all breeding villages and farmers. Kangda provide low interest loans to help farmers to construct rabbit farm and rabbit sheds. Kangda provide technical training to the farmers through farmers cooperatives and sign agreements or contracts with cooperatives and farmers to define the rights, obligation and benefits of each party. Kangda provide young rabbits to farmers and purchase back the commodity rabbits with pre-determined protective price. Kangda implement "five unified management" to contracted farmers and cooperatives. Kangda is responsible for unified supply of young rabbits, rabbit feeds, rabbit drugs, unified disease prevention and unified slaughter and processing. Farmers are only responsible for breeding. These contracted cooperatives and farmers provide Kangda 8-10 million commodity rabbits each year. Kangda pay the farmers 5-8 yuan net profit for each commodity rabbit, the net annual income of the farmers is around 40-50 million yuan. This approach effectively guarantees the interests of the farmers and the company.

The practice of Kangda in developing intensive, industrialized rabbit production in form of "leading enterprise + cooperatives + farmers" shows the following advantage of

intensive, industrialized rabbit production which will effectively solve the constraints and problems facing small individual backyard rabbit farmers.

THE COMPANY AND FARMERS FORM A COMMUNITY OF COMMON INTERESTS AND DEVELOPMENT, COMPLEMENTED EACH OTHER

Industrialized enterprises normally compete with traditional small households farmers. Intensive farming of low cost and high productivity tend to make small farmers marginalized or even bankruptcy. Under the production mode of leading enterprises + cooperatives + farmers, the company and farmers formed a community of common interests which will avoid this problem.

Individual farmers normally feed 20-30 females, 5-6 males, with annually production of 700-1000 commercial rabbits. Every female rabbit provides 25-35 commercial rabbit on average.

In the intensive production of Kangda, each breeding unit keeps 1500-2000 breeding females by way of artificial insemination, providing 7-90,000 commercial rabbits annually, per breeding female provide 35-45 commercial rabbits on average. (yet, this figure is still low to compare with the developed countries). It is absolutely two different levels. But the company and farmers formed a benefit-sharing and risk-sharing community through the production form of "enterprise + cooperatives + farmers", and avoid to compete with the farmers. Both the company and the farmers benefited from the fast growth of Kangda. This production mode enabled the production of Kangda reaching 20 million rabbits just in few years.

THE CONTRACTED FARMERS NO LONGER WORRY ABOUT THE PROBLEM OF BREEDING CAPITAL

Under Kangda production mode, the company provide low-interest loans to the contracted farmers to help them to build their breeding farm or sheds, the company provide young rabbits, feed, drugs, and will buy back commodity rabbits with pre-determined

contractive price, the contracted farmers are only responsible to breed the rabbits, had get net profit paid by the company, the contracted farmers no longer worry about the capital problem.

**ENABLES THE RABBIT INDUSTRY
ADOPT STANDARDIZED PRODUCTION
AND ADVANCED TECHNOLOGY TO
REDUCE PRODUCTION COST AND
ENSURE QUALITY AND FOOD SAFETY**

Individual backyard breeding is of high cost and low productivity and it is difficult to implement standardized production and to apply advanced technology to ensure the quality and food safety, and raise productivity. The industrial and intensive production of Kangda effectively solved this problem.

The company established strict quality-control system and standardized production and whole process monitoring system of food safety and quality control, Kangda passed the ISO9001 and ISO14001 quality certification. And has HACCP registration in Japan, USA, and the EU. all breeding farms are equipped with advanced breeding cages, automatic feed and water supply and environment-control equipments. Besides management of its own farms, the company also designed and build uniform standardized animal houses for the 200 breeding villages and provided technical training to the farmers and carried out unified quality control, disease prevention and production management over the breeding villages. The company established research center which is cooperated with agricultural universities, and institutions so as to study and apply advanced feeding, breeding and quarantine technology Kangda has a strong technical team, including three PhD, 6 Masters, and 40 college graduates. The company established its own laboratory equipped with advanced experiment and testing instruments, providing quality control for Kangda and the contracted farmers. All these helps the company and the contracted farmers improve the productivity, decrease production cost and up-grade the quality.

**ENABLES THE INDUSTRY TO
ESTABLISH RABBIT DISEASE
PREVENTION SYSTEM**

Rabbit disease control and prevention has always been the most difficult problem to resolve for scattered individual households farming. Rabbit diseases often cause individual households farmers go bankruptcy. Relying on its strong technical team and facilities, Kangda established a complete rabbit disease control and prevention system for its own breeding farms and the related breeding villages, which help the company and contracted farmers effectively prevent and treat rabbit diseases and lowered disease risk.

**INDUSTRIALIZED PRODUCTION
ENABLES THE LEADING COMPANY
TO CULTIVATE FINE RABBIT STOCK
OF HIGH YIELD AND QUALITY TO
INCREASE PRODUCTIVITY**

To cultivate high yield and quality synthetic line of meat rabbit stock is crucial to the rabbit industry in developing countries in order to lower production cost and upgrade the quality. Only leading enterprise has the ability to shoulder this task. China used to rely on import rabbit stock, and spend millions of foreign exchange to import rabbit breeds periodically. In order to foster its' own synthetic line of meat rabbit stock, Kangda invested 5 million US dollars in 2004 in setting up two core rabbit stock breeding farms, 6 grand parents rabbit stock breeding and production farms and a research center , with 8,000 sets in grandparent farms, 240,000 sets of parents, In 2008, Kangda established a Sino-French rabbit stock breeding and cultivating joint venture ,and succeed in cultivating its own synthetic line of meat rabbit stock in 2011. The quantity of which are more than enough for its own usage (including contracted farmers), and also supply to other enterprises and farmers. This is unimaginable before 2000, when individual backyard breeding accounted 90% in China rabbit production.

**INCREASE MARKET ACCESS ABILITY
FOR FARMERS PRODUCTS, AVOID
THEIR MARKETING RISK**

It is always a big problem for farmers to market their rabbit, market fluctuation often lead to farmers bankruptcy. The integrated leading company has specialized marketing personnel to explore market that help the individual farmers to sell their products. Kangda has a big domestic market shares, and also export rabbit products to the EU, Russia, Japan. Southeast Asia countries and regions. The products of the farmers are marketed through Kangda and they no longer worry about the market risk.

SUMMARY

The fast development of China's rabbit production has benefited from China's

Agricultural industrialization in the mode of "leading enterprises + cooperative + farmers". The fast growth of Kangda rabbit production within less than ten years also benefited from China's policy of agricultural industrialization. Chinese farmers are especially benefited from this policy. Different developing countries may adopt different methods to industrialize their rabbit industry. On the whole, agricultural industrialization is the best choice for rabbit industry of Asian developing countries to develop.

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