

Potential Opportunities for Potato Industry's Development in China Based on Selected Companies

Final Report

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EXECUTIVE SUMMARY

China has become the largest potato producer in the world. It has a robust potato industry that is expected to grow due to China's economic development, increasing demand for diverse and quality food, and important government support. However, not much research exists about this industry, when compared with other crops such as rice, wheat, and maize.

The objective of this report is to identify possible opportunities for global potato industry stakeholders interested in finding potential links and collaborations in the Chinese potato industry. The idea of generating this report began at the very successful 9th World Potato Congress, held in Beijing (Yanqing), PR China, in 2015. Realizing the predominant global impact of the Chinese potato industry, the World Potato Congress, Inc. (WPC Inc.) and the International Potato Center (CIP) signed a memorandum of understanding, laying the initial steps of what later became this report. (See full press release at <http://potatocongress.org/international-projects/china/>.)

This report was generously funded by the WPC Inc., with supporting funds from CIP. The work was led by the CIP-China Center for Asia Pacific (CCCAP), and was prepared by a consultancy team, led by Dr. Huaiyu Wang from the Beijing Institute of Technology (BIT).

In total, we collected detailed data from 130 enterprises that were analyzed and recorded. This information covers potato production (51 companies), processing (30 companies), chemicals (31 companies), and machinery (18 companies). CIP-CCCAP led the survey design and collected the detailed information on 109 enterprises. The BIT team added information from another 21 enterprises, reanalyzed the data, and wrote the present report.

The main potato areas in China are mostly located in the country's north and southwest. These areas, on average, have lower income levels and are less developed. In addition, potato yield there is lower than the national level. Inconsistency between demand and supply in the potato market seems to be the main constraint in the further development of the potato industry in China. High-yielding and high-quality potato varieties and improved technical services might be attractive for Chinese potato farmers.

The companies involved in the potato value chain tend to cluster in areas of specialty. For example, seed production companies are mostly found in the main potato-planting provinces. The companies in the processing, chemicals, and machinery industries tend to be found in the developed provinces such as Beijing, Shandong, and Shanghai.

To satisfy the increasing demand for processed potato products, we suggest that new entrants focus on the three developed provinces mentioned above. Also, investment in new or improved products for niche potato markets seems to be an opportunity in China. Finally, we also suggest that international companies trying to enter the Chinese potato industrial sector quickly may want to consider establishing a joint-venture with a local partner. If this is the preferred option, the international company will have to consider that the local partner will need—or may want to receive, as part of the joint-venture agreement—the transfer of advanced technology and modern management techniques.

INTRODUCTION

China has become the largest potato producer in the world, accounting for 25% of global production.¹ The Chinese potato industry has been growing rapidly thanks to strong government support, especially since the release of the “Potato-as-Staple Food Strategy” government report in 2015.² We expect the Chinese government to continue its decisive support for increasing the potato output due to the continuous implementation of this national strategy. Potato is China’s fourth staple crop after rice, wheat, and corn in terms of its sowing area.³ There are plenty of potential cooperation opportunities between the potato sector in China and those in other countries.

Despite the rapid development of Chinese potato production, there are few studies on the Chinese potato industry. At the time this report was prepared, the information that could be collected online was limited, especially in the socioeconomic field. Most studies available are related to the technology per se. Thus, the report was based on a literature review, expert interviews, and data analysis on various company information.

The objective of this report is to identify the possible prior opportunities for those interested in the Chinese potato industry based on the selected companies associated with the background information. The conclusions and suggestions would provide a reference for the potential linkage. The database collected for this report is provided as Annex 1; supplementary information on 25 potato production companies and on 16 potato-processing companies appears in Annex 2.

There were four main project activities: (1) Collection of background information of enterprises in key potato production regions in China, including enterprises engaged in potato production and processing, as well as suppliers of chemicals and machinery. The information was collected through online searches, telephone inquiries, and from conferences and expert opinions. (2) Chinese potato production statistical data were collected to help us better understand China’s potato industry. (3) Constraints and opportunities for potato development in China were reviewed. (4) After the respective analysis, conclusions and suggestions were made about which Chinese potato industry sectors would be of prime interest to overseas investors and companies.

Following this introduction, the report is organized as follows: section 1 describes the development of potato production in China based on statistical data. All the analyses, including the figures in this section, are elaborated by the authors based on the national statistical data from the National Bureau of Statistics of China (NBS) (<http://data.stats.gov.cn/>). Section 2 reviews the Chinese potato industry, focusing on its constraints and opportunities. Section 3 analyzes the distribution of the 130 surveyed potato enterprises by industry and region, helping us to identify priority areas and industries. Section 4 presents the conclusions and discusses the implications for the promotion of the potato industry’s development in China. References are included in Section 5.

¹ http://english.gov.cn/state_council/ministries/2015/07/29/content_281475156855776.htm

² http://jiuban.moa.gov.cn/zwl/m/zwdt/201501/t20150106_4323476.htm

³ http://english.gov.cn/state_council/ministries/2015/07/29/content_281475156855776.htm

1. THE DEVELOPMENT OF POTATO PRODUCTION IN CHINA

The area and output of potato in China have been increasing continuously over the past decades (Qu et al. 2004; Sun and Liu 2009; Luo et al. 2015; Yang et al. 2017). In 2014, the country grew 5.6m hectares (ha) of potato, with an output of over 95m tons (t). This provides an average yield of about 17 t/ha. Although China is the largest potato producer in the world, and accounted for more than 80% of the increase in global production in the last few years (Wang and Zhang 2004), its average yield is still below the global average yield of 20 t/ha.

Nowadays, the main potato-planting areas are in the country's north and southwest regions (Yang et al. 2017); however, potato is mostly produced in the less-developed provinces. In 2014, the top five provinces for potato production accounted for more than 60% of China's total potato-planting area (Fig. 1)—namely Sichuan (14.16%), Guizhou (12.64%), Gansu (12.25%), Yunnan (10.12%), and Inner Mongolia (9.70%). They also accounted for nearly 60% of the potato output, measured in metric tons, in China (Fig. 2). The income in both urban and rural areas in the main potato-planting areas is lower than the Chinese national average (Fig. 3). These facts also highlight the importance of potato's contribution to the income of local farmers.

Figure1. Share of potato area by provinces in 2014(%)

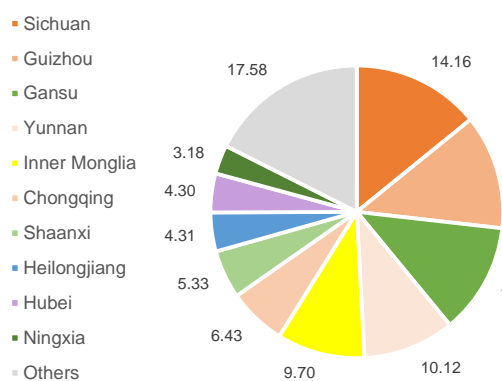
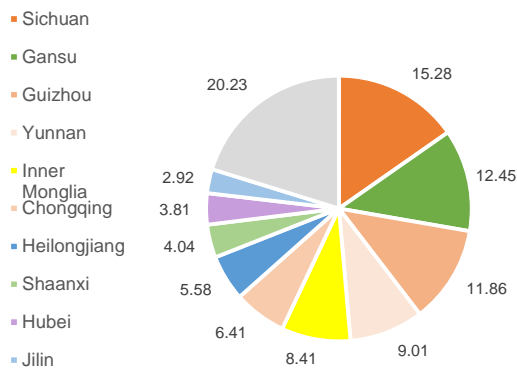


Figure2. Share of potato output by provinces in 2014(%)

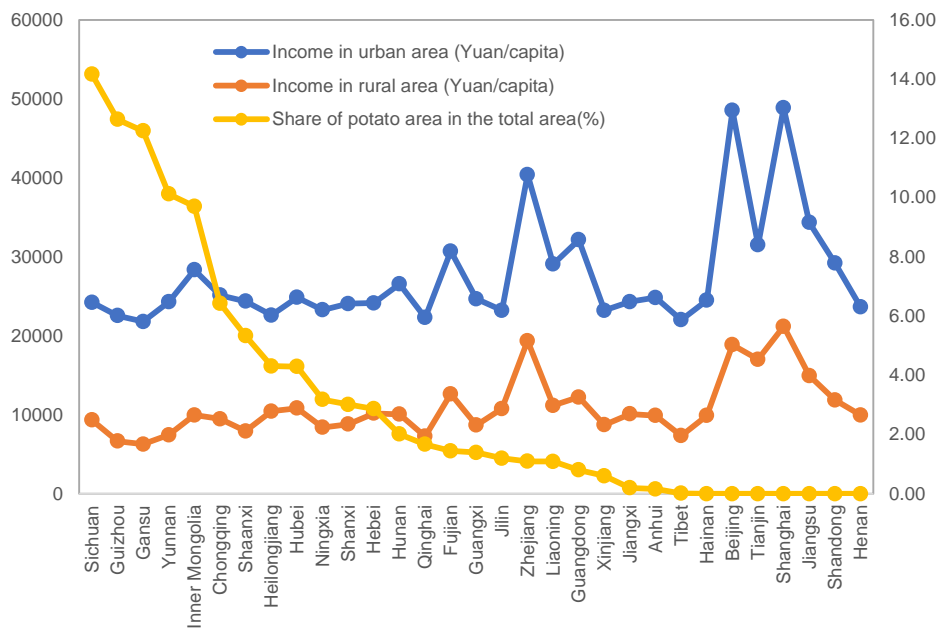


The per capita potato-planting area in these provinces is higher than the national level of 0.004 ha, especially when referring to Inner Mongolia, Gansu, and Guizhou provinces. The planting area in these provinces is more than 0.02 ha per capita—five times greater than the national average. The large area dedicated to potato cultivation shows the big potential of introducing mechanization.

In addition, the yield in the main potato-planting areas is much lower than the national level. Yield in Sichuan, Gansu, Guizhou, and Inner Mongolia is under 20 t/ha. According to national statistics, the highest yield in the country is in Jilin Province, which recorded yields of over 40 t/ha in 2014.⁴

⁴ The calculation is based on the data from NBS (<http://data.stats.gov.cn/easyquery.htm?cn=C01>).

Figure 3. Distribution of provincial income and its share of area



This points to the existing potential to increase their potato yield and total potato production. Associated with local economic development, local experts who were interviewed agreed that the major bottleneck to increasing potato yield locally is the lack of inputs, such as better varieties, quality seed, and increased fertilizer use. The same experts indicated that the second most important bottleneck was the limited access to equipment and machinery for mechanized cultivation, planting, fertilizing, spraying, and harvesting. For a detailed analysis of the causal effects of the yield gap, further study may be warranted.

2. CONSTRAINTS AND OPPORTUNITIES OF THE CHINESE POTATO INDUSTRY

During this work, we summarized the policies related to potato industry development for the past 10 years. From 2009 to 2015, the few new policies promoting the potato industry focused mostly on the industrial use of potato, such as chips-processing. In 2015, the “Potato-as-Staple Food Strategy” was implemented.⁵ This policy was pivotal in the development of the potato industry in China since it enacted the use of subsidies from the central government to promote potato production and processing industry in a comprehensive way. In 2016, potato became China’s fourth largest crop (in terms of area) after rice, wheat, and corn.⁶

2.1 POTATO-BREEDING PROGRAMS

Major potato production constraints include inadequate germplasm resources for cultivar development and the lack of high-quality seed potatoes (Jansky et al. 2009).

⁵ http://jiuban.moa.gov.cn/zwl/m/zwdt/201501/t20150106_4323476.htm

⁶ http://english.gov.cn/state_council/ministries/2015/07/29/content_281475156855776.htm

The breeding programs in China focused mainly on improving high-yielding varieties (Qu et al. 2004) and lacked diversified uses. Special-purpose potato cultivars started to be released after 2000; however, the quality of the newly released potato varieties varied greatly across regions and cultivars. A standardized system and a centralized authority would be helpful to monitor and approve new potato varieties and track their adoption (Qu et al. 2004; Sun 2006; Qu et al. 2007; Peng 2017).

2.2 PROCESSING INDUSTRY

Thanks to the expansion of the potato starch-processing industry in China, it has become a priority to develop new potato varieties with high starch content for this industry. The production and processing of potato starch are the most important components of the potato-processing industry, although the industry is marked by overcapacity (Qu et al. 2004; Jansky et al. 2009; Wang 2011).

2.3 DEMAND AND PRODUCTION

Potato consumption in China has increased significantly in previous years. This increase was seen mostly in food, feed, and processing with shares of 59%, 21%, and 8.9%, respectively (Huang 2017; Luo 2015; Yang 2017). The demand for potato and its products has increased and is higher than the global level (Wang 2009). Because of the significant increase in incomes of rural and urban areas in China, there is high demand for high-quality potato products.

Most high value-added potato products (e.g., crisps and French fries) were imported into China, showing, to some extent, the inability of local potato production (Zhang 2007) to supply these markets. Most imported industrial machinery was not suited for the crisps and French fries processing industries (Li 2004) because of the lack of suitable processing varieties grown by farmers.

Although some main potato-planting areas established the brand for fresh potato products—for instance, “Dingxi Potato” in Gansu Province—consumers in a small, nonscientific consumer survey that we conducted were not familiar with any of them. If more detailed information about market preferences and brand recognition of processed potato products is needed, we suggest an unbiased, deeper research and analysis be done of consumer behavior toward potato products in China. Also, there is little promotion or advertisement for any potato brand in supermarkets. In our opinion, a famous brand, a marketing push, and an efficient production system are all needed to increase the price, develop the local industry, and expand the market.

2.4 POTATO CULTIVATION

We believe that the limitations China faces in the production of potato should be an opportunity for any enterprise focused on improving productivity in this sector. Labor costs in China have increased as the average urban wages has nearly tripled in a decade, from RMB 24,721 in 2007 to RMB 67,569 in 2016.⁷ The share of labor cost in total cost in potato production in China was more than four times that in the United States (Liu 2014). The costs of producing potato in China have been increasing as well (Luo et al. 2015). Also, mechanized cultivation covers less than 1% of the total potato cultivated area, compared with about 70% in developed countries (Sun and Liu 2009). Machinery and technologies related to potato cultivation could be a potential market for the industry.

⁷ <http://data.stats.gov.cn/easyquery.htm?cn=C01>

2.5 HIGH INDUSTRY CONCENTRATION

Based on the dates when 130 selected Chinese potato-processing enterprises were created, it seems that in the past 15 years China's potato industry developed very fast. Yet the industry appears to have become concentrated in certain regions and with a few players dominating the market. For example, in 2010, the top five enterprises for crisps accounted for more than 80% of the market (Wang 2011). At the same time, the top five starch-processing companies accounted for 40% of market capacity (ibid.).

3. ANALYSIS OF A SAMPLE OF THE COMPANIES BEING COLLECTED

The potato companies were selected and interviewed during the 2015 National Potato Conference. Complementary information was collected from experts in the field and from the internet. It is difficult to find information on potato-related companies in China because there is no specific organization in charge of data collection in this sector.

We collected detailed data on 130 Chinese potato enterprises. The database containing all information on these 130 companies is presented as Annex 1 (an Excel file). Extra, detailed information on 25 potato production companies and on 16 potato-processing companies is presented as Annex 2. The information covered in this report and its files cover potato production (51 companies), potato processing (30 companies), chemicals (31 companies), and machinery (18 companies). These 130 enterprises can be found across the country but are geographically concentrated in the north: Hebei (19), Beijing (14), Shandong (12), Inner Mongolia (10), and Heilongjiang (8). Besides the north, the provinces of Yunnan (11), Gansu (8), and Shanghai (7) are also represented in our surveys.

The registered capital varies across industries. In total, nearly half of the companies have no more than 20m RMB of registered capital. Over 30% of the companies have 20m–100m RMB in capital. The share of companies with capital of 100m–500m RMB and more than 500m RMB are 12.5% and 9.4%, respectively (Table 1). Six companies with more than 1,000m RMB of registered capital are engaged in processing and chemicals industry. The capital distribution of chemical and processing companies varies more than those in potato production and machinery. The companies for production and machinery are mostly small and medium-sized enterprises, largely with less than 100m RMB in registered capital.

Table 1. Distribution of companies by registered capital

Registered Capital (million RMB)	No. of Companies	Share (%)	Registered Capital (million RMB)	No. of Companies	Share (%)
Production	51	39.8	Chemicals	31	24.2
<=20	28	21.9	<=20	9	7.0
20–100	17	13.3	20–100	7	5.5
100–500	4	3.1	100–500	7	5.5
<=1,000	2	1.6	<=1,000	3	2.3
>1,000	0	0.0	>1,000	4	3.1
Processing	30	23.4	Machinery	18	14.1

Registered Capital (million RMB)	No. of Companies	Share (%)	Registered Capital (million RMB)	No. of Companies	Share (%)
<=20	9	7.0	<=20	15	11.7
20–100	12	9.4	20–100	3	2.3
100–500	5	3.9	100–500	0	0.0
<=1,000	1	0.8	<=1,000	0	0.0
>1,000	2	1.6	>1,000	0	0.0

Source: Authors' own survey. Average exchange rate at the time of the survey: \$1 = 6.76 RMB.

As for the time of establishment, most of the sampled companies were formed after 2000 (Table 2); there were only chemical companies before 1990. This indicated, to some extent, that the companies related to potato production are still relatively new.

Table 2. Distribution of companies by established time

Year Established	No. of Companies	Share (%)	Year Established	No. of Companies	Share (%)
Production	51	39.8	Chemicals	31	24.2
Before 1990	0	0.0	Before 1990	2	1.5
1991–1999	2	1.5	1991–1999	13	10.0
2000–2009	30	23.1	2000–2009	12	9.2
2010–2016	19	14.6	2010–2016	4	3.1
Processing	30	23.4	Machinery	18	14.1
Before 1990	0	0.0	Before 1990	0	0.0
1991–1999	9	6.9	1991–1999	0	0.0
2000–2009	14	10.8	2000–2009	11	8.5
2010–2016	7	5.4	2010–2016	7	5.4

Source: Authors' own survey.

Except for potato-processing companies, most of the potato seed producers are based in the main potato-producing area (Table 3). The companies in potato production are mostly engaged in seed production. Many seed producers (seed companies) are in the north of Hebei Province (Zhangjiakou Prefecture) and the middle-east of Inner Mongolia. Owing to the climate conditions in these regions (sandy soils, cool weather conditions, and high altitude) and convenient transportation, many companies are incorporated in these regions or have their production fields there. The potential problems for these regions are the (1) overuse of groundwater and the fast drop of the water table, and (2) serious soil-borne diseases and difficulty to arrange rotation. The geographic locations of the processing, chemicals, and machinery companies are more scattered.

Table 3. Distribution of companies by location

Location	No. of Companies	Share (%)	Location	No. of Companies	Share (%)
Production	51	39.8	Processing	30	23.4
Hebei	13	10.0	Yunnan	4	3.1
Inner Mongolia	8	6.2	Shanghai	4	3.1
Gansu	6	4.6	Beijing	2	1.5
Yunnan	5	3.8	Guizhou	2	1.5
Heilongjiang	5	3.8	Ningxia	2	1.5
Guangxi	2	1.5	Shanxi	2	1.5
Chongqing	2	1.5	Gansu	2	1.5
Shanxi	2	1.5	Hebei	2	1.5
Ningxia	2	1.5	Heilongjiang	2	1.5
Others	6	4.6	Hubei	2	1.5
Chemicals	31	24.2	Others	6	4.6
Shandong	7	5.4	Machinery	18	14.1
Beijing	5	3.8	Beijing	6	4.6
Hebei	4	3.1	Shandong	4	3.1
Shanghai	3	2.3	Henan	3	2.3
Zhejiang	3	2.3	Inner Mongolia	2	1.5
Anhui	2	1.5	Others	3	2.3
Yunnan	2	1.5			
Guangdong	2	1.5			
Others	3	2.3			

Source: Authors' own survey.

4. CONCLUSIONS AND SUGGESTIONS

4.1 INCREASING DEMAND FOR HIGH-YIELDING AND QUALITY VARIETIES WITH DIVERSIFICATION

The production of potato in China has been fluctuating over the past decades. Yield has increased but is still below the international average. High-yielding table and processing varieties resistant to biotic and abiotic stresses might be attractive to farmers. This indicates the substantial potential of potato production in China as farmers would need more support in inputs and services to realize the full yield potential of potato and increase their livelihood.

4.2 POTENTIAL FOR COMPANIES TO PRODUCE AGRICULTURAL INPUTS AND PROVIDE TECHNICAL SERVICES

The large scale of potato production in China shows the possibility of mechanized cultivation in the future. According to the Xinhua News Agency, the policy document called for the implementation of a rural land reform which separates farmland ownership rights, contract rights,

and operating rights, allowing farmers to earn more by transferring their land rights to individuals or conglomerates.⁸ Based on policy, farmland could be exchanged and contracted more often among local farmers. We expect that the scale of potato production has the potential to increase further and could be an opportunity for mechanized cultivation. Also, this would increase demand for agricultural inputs such as fertilizer and pesticides, relevant machinery, and technical services. By 2012, the number of large- and medium-sized tractors per 100 rural households was 4.40 units, and the number of mini- and walking tractors per 100 rural households was 20.49.⁹

4.3 INCREASING DEMAND FOR QUALITY PROCESSED PRODUCTS

China's economic development is projected to keep increasing in the next few years, which will be reflected in the steady growth of consumer income. This will affect food consumption patterns, with consumers demanding better and more elaborate products, including potato products. This should fuel growth in China's potato production market and its output. As already mentioned, the potato-processing and potato seed industries are highly concentrated. This means that new entrants to these markets would need clearly defined competitive advantages, possibly with high investment and high innovation, to break through.

In general, the economic development level is an important indicator for the openness of the market and the transaction costs associated with the policy environment and transportation as well as services for the companies. To access the target market for processed products, the developed provinces might be given priority (e.g., Beijing, Shanghai, Shandong, etc.).

4.4 POTENTIAL FOR INVESTMENT IN THE POTATO-PROCESSING INDUSTRY

In China, the potato-processing industry is highly concentrated, with over-investment particularly in the starch-processing industry. As a result, we suggest that future potential investments in the Chinese potato industry should focus instead on niche markets like quality fresh potatoes and processed specialized potato products, such as potato bread, potato noodles, and others.

Potential investments in the machinery/equipment potato industry need to factor in that local competitors are mostly small and medium-sized enterprises. To invest in such industries with advanced technology and management experience may be very attractive for local governments. Any investor needs to take into consideration all multiple facts and factors that can potentially affect the investment, which is beyond the scope of this study.

⁸ http://english.agri.gov.cn/news/dqnf/201702/t20170206_247179.htm

⁹ The data are from the website of National Bureau of Statistics of China. <http://data.stats.gov.cn/>. Newer data is unavailable.

5. REFERENCES

- Giordanengo, P., Song, B.T., Guo, X.P., Liu, J., and Xie, C.H. 2008. Potato industry in China. *Cahiers Agricultures* 4: 343–348.
- Huang, F.L., Zhang, L., Li, X., et al. 2017. Development status and countermeasures of potato industry in China [J]. *Agriculture Outlook* 1: 25–31. (in Chinese)
- Jansky, S.H., Jin, L.P., Xie, K.Y., Xie, C.H., and Spooner, D.M. 2009. Potato production and breeding in China. *Potato Research* 1: 57–65.
- Li, B. 2004. *Chinese potato snack food processing*. [C] Harbin Engineering University Press. (in Chinese)
- Liu, Y., Luo, Q., Fao, M., et al. 2014. *Changes in the yield of potato production in China and its comparison with the United States*. [C] Harbin Engineering University Press. (in Chinese)
- Luo, Q., Liu, Y., Gao, M., et al. 2015. Status and prospect of potato industry in China [J]. *Agriculture Outlook* 3: 35-40. (in Chinese)
- Peng, Z. 2017. *Developing the potato industry in Guizhou, contributing to the accurate poverty alleviation*. [C] Harbin Map Publishing House. (in Chinese)
- Qu, D., Xie, K., Jin, L., et al. 2004. *Development and technical requirements of potato industry in China*. [C] Harbin Engineering University Press. (in Chinese)
- Qu, D., Xie, K., Jin, L., et al. 2007. *The Chinese potato industry and modern agriculture*. [C] Harbin Engineering University Press. (in Chinese)
- Sun, H. 2006. Experts in answering questions for you [M]. China Agriculture Press. (in Chinese)
- Sun, D, and Liu, L. 2009. The development status and prospect of potato industry in China [J]. *Agriculture Outlook* 3: 25–28. (in Chinese)
- Wang, W. 2009. Strong confidence in promoting harmonious development of potato industry [J]. *Food Industry Technology* 8: 18–20, 22. (in Chinese)
- Wang, W. 2011. A promising future in the new potato industry: a summary of the future prospects of experience planning. *Food Technology* 9: 1–11. (in Chinese)
- Wang, Q.B., and Zhang, W. 2004. China's potato industry and potential impacts on the global market. *American Journal of Potato Research* 2: 101–109.
- Yang, Z., Yu, Q., and Liu, G. 2017. Recent years of potato industry situation and 2017 outlook [J]. *Agriculture Outlook* 9: 57–61. (in Chinese)
- Zhang, Taiping. 2007. Some thoughts on developing the potato industry in Guizhou [J]. *Farming and Cultivation* 6: 1–3. (in Chinese).

ANNEX 2. INFORMATION ON POTATO COMPANIES IN CHINA

Code	Production 01
English Name	Inner Mongolia Linkage Potato Co., Ltd.
Chinese name	内蒙古凌志马铃薯科技股份有限公司
Ownership	Private
Registration ID	150400000013332
Website	www.linkagepotato.com
Province	Inner Mongolia
Address	Yulong Food Industrial Park in Wengniute Banner, Chifeng City, Inner Mongolia, China
Legal representative	Hongzhi Yan
Position	Chairman and Managing Director
Contact person	Jian Zhang
Position of contact person	Marketing manager
Telephone	+86-476-2275009/13739939951
E-mail	zhangjian@linkage.cc
Fax	+86-476-2275008
Established time	8/28/2006
Registered capital	76m RMB
Employee	
Main products	The self-owned brands of Linkage are Funong seed potato, Linkage potato flakes, Shuwang potato leisure food and so on.
Main business	Seed/fresh potato/Flakes/French fries/Snacks
Company profile	Inner Mongolia Linkage Potato Co., Ltd. has 2,100 m ² of lab and 33.3 ha of net house for minituber production. They can produce 20m plantlets and 50m minitubers per year. They also have five modern farms and 4,667 ha of high standard planting bases.
Code	Production 02
English Name	Inner Mongolia Zhengfeng Potato Seed Co., Ltd.
Chinese name	内蒙古正丰马铃薯种业股份有限公司
Ownership	State-owned
Registration ID	150000000004394
Website	http://zfmlszy.com
Province	Inner Mongolia
Address	22# Zhaojunlu, Yuquan Region, Hohhot, Inner Mongolia, China
Legal representative	Ting Yun
Position	Chairman and Managing Director
Contact person	Ting Yun
Position of contact person	Chairman and Managing Director
Telephone	+86-471-5976740/13804714769
E-mail	zfyunting@126.com

Fax +86-471-5963946
Established time 12/16/1998
Registered capital 15.4m RMB
Employee 92
Main products
Main business Seed
Company profile Inner Mongolia Zhengfeng Potato Seed Co., Ltd. has 1,500 m² of lab, 1,800 m² of tissue culture room, 30 greenhouses, 6.7 ha of net house, 20,000 m² of large-scale storage space, and 2,667 ha of arable land for seed potato production. They can produce 20m plantlets, 50m minitubers, and 50,000 t of virus-free seed annually. Their products are sold to more than 20 provinces in China.

Code Production 03
English Name Inner Mongolia Minfeng Potato Seed Co., Ltd.

Chinese name 内蒙古民丰种业有限公司

Ownership Private

Registration ID 152601000001777

Website <http://www.minfpotato.com/>

Province Wulanchabu City, Inner Mongolia

Address Lichang Village, Jining District, Wulanchabu City, Inner Mongolia

Legal representative Zhang Guo

Position General Manager

Contact person

Position of contact person

Telephone 0474-8262333, 4000712001

E-mail

Fax 0474-8986838

Established time 5/10/2008

Registered capital 120m Yuna

Employee 298

Main products

Main business Seed Potato, commercial potato

Company profile The company was established in 2008 with its headquarter in Wulanchabu City, occupying 3m500 mu of land. Its registered capital was 120m Yuan and the total investment was 650m Yuan, which goes to potato R&D, seed production, grade and processing, warehousing and shipment. It is one of the leading agricultural companies in China, and has a total staff of 142, including three PhDs, 10 MSc, and 10 employees with senior academic titles.

Code Production 04

English Name Snow Valley Agriculture Development Co., Ltd.

Chinese name 雪川农业发展股份有限公司

Ownership	Private
Registration ID	91130700798405073D
Website	www.snowvalley.com.cn
Province	Hebei
Address	Huangshan, Chabei Region, Zhangjiakou, Hebei, China
Legal representative	Dengshe Wang
Position	Chairman and Managing Director
Contact person	Lin Zhang
Position of contact person	Deputy Director
Telephone	+86-400-851-6000/18531302003
E-mail	admin@snowvalley.com.cn/1393238800@163.com
Fax	+86-313-5367660
Established time	1/15/2007
Registered capital	75.94m RMB
Employee	
Main products	Shuniliang, Shuniniu, Snow Valley, Snow Peak
Main business	Seed/fresh potato/Flakes/French fries/Snakes
Company profile	Snow valley is a national agricultural enterprise in China. Currently the group has 3 subsidiaries for seed production, 3 subsidiaries for potato cultivation, 1 Sino-Holland joint venture for frozen fries and flake processing, 1 provincial enterprise technology center, 11 large farms and 1 agricultural machinery service unit. It has built a large-scale base of 10,000 ha with 180 sets of imported large pointer type sprinkler, and 320 sets of agricultural equipment from home and abroad. Each year it can produce 50m minitubers and 100,000 t of tubers of different generations. Snow Valley is also one of the units for agricultural product traceability system development and is the only group that passed the Global G.A.P., China G.A.P., ISO9001 and ISO22000, and obtained five certifications for potato as a green food.

Code	Production 05
English Name	Inner Mongolia Grade Seed Potato Co., Ltd.

Chinese name	内蒙古格瑞得马铃薯种业有限公司
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Ownership	Private
Registration ID	152527000003305
Website	http://www.img-grade.com
Province	Inner Mongolia
Address	Agricultural Industry Park, Taipusiqi, Inner Mongolia, China
Legal representative	Donghu Li
Position	Chairman
Contact person	Hao Chen
Position of contact person	Manager
Telephone	13947391493, 0479-5232000, 4006341909
E-mail	admin@geruide.net

Fax	0479-5232666
Established time	1/25/2007
Registered capital	50m RMB
Employee	220
Main products	
Main business	Seed/fresh potato
Company profile	The Grade Group has 5 subsidiaries, including Chengde Dafeng Seed Potato Co., Ltd., Inner Mongolia Baisite Agriculture Science and Technology Co., Ltd., Inner Mongolia Grade Northwest Branch, Inner Mongolia Grade Northeast Branch and Taipusiqi Potato Research Institute. Currently they have 18.4 ha of construction land, 8,800 m ² of tissue culture room, 354 net houses, storage space for 20,000 t of potato, 5,400 m ² of storage space for machinery, 3,000 ha of arable land, 62 sets of pointer type sprinkler, and 20 sets of potato production facilities. The group can produce 35m plantlets and 50m minitubers annually and grow 1,000 ha of field that produces 50,000 t of seed potato.
Code	Production 06
English Name	Xisen Potato Industry Group Co., Ltd.
Chinese name	希森马铃薯产业集团有限公司
Ownership	Private
Registration ID	91371481796196845U
Website	http://www.xisen.com.cn
Province	Shandong
Address	Xujia Village, Huangjia Township, Laolin City, Shandong Province, China
Legal representative	Xisen Liang
Position	Chairman
Contact person	
Position of contact person	
Telephone	010-60159988 60159509
E-mail	
Fax	
Established time	12/17/2006
Registered capital	154.8m RMB
Employee	94
Main products	
Main business	Seed/fresh potato
Company profile	Xisen Group has 4 subsidiaries, including Beijing Xisen Sanhe Potato Co., Ltd., Inner Mongolia Xisen Seed Potato Co., Ltd., Laolin Xisen Potato Market Co., Ltd. and Laolin Xisen Potato Breeding Company. The Group planned to attract a total investment of 3.25bn RMB. In 2008, it introduced 175m RMB from Hong Kong Mantu Investment Group, and 115m RMB from Beijing Huiyuan Beverage Food Group. Up till now, it has altogether attracted 1.8bn RMB. The Group can produce 0.4bn minitubers annually, 2.5 bn by Laolin base, and 1.5bn by Beijing

Base. In the base of Wulanchabu in Inner Mongolia, they have 8,000 ha of arable land with an annual yield of 1,300,000 t of seed potato. They also established air-conditioned storage space with the capacity of 450,000 t and a flake processing facility with the productivity of 20,000 t.

Code	Production 07
English Name	Daxinganlin Xingjia Seed Co., Ltd.
Chinese name	大兴安岭兴佳种业有限公司
Ownership	Private
Registration ID	91232700692617166M
Website	www.xjseed.com
Province	Heilongjiang
Address	Changhong block, Jiagedaqi, Daxinganling, Heilongjiang, China
Legal representative	Wenge Zhu
Position	Chairman
Contact person	Wenge Zhu
Position of contact person	Chairman
Telephone	+86-0457-2174949/13804845555
E-mail	xingjiazy@163.com
Fax	
Established time	9/1/2009
Registered capital	6.39m RMB
Employee	
Main products	
Main business	Seed/fresh potato
Company profile	Daxinganling Xingjia Seed Co., Ltd. is supported by Daxinganling Academy of Agriculture and Forestry and works on potato research, production and marketing. It has 400 sets of professional equipment, 25,500 m ² of greenhouse, 95,000 m ² of net house, and 16,000 m ² of seed storage space.

Code	Production 08
English Name	Hongee Agriculture
Chinese name	张家口弘基农业科技开发有限责任公司
Ownership	Private
Registration ID	9113071167738689X8
Website	http://www.zjkhjny.com
Province	Hebei
Address	Yushugou, Saibei Region, Zhangjiakou City, Hebie, China
Legal representative	Hai Zhang
Position	Chairman
Contact person	Ge Zhang
Position of contact person	Manager

Telephone	+86-13803133133
E-mail	hjjtbgs@126.com
Fax	+86-313-5755902
Established time	7/18/2008
Registered capital	56.1m RMB
Employee	
Main products	
Main business	Seed/Flakes
Company profile	Hongee Agriculture has a complete potato multiplication system with 33.3 ha of potato tissue culture center, 200 ha of greenhouse/net house and 1,333.3 ha of field for seed multiplication. It can produce 50m plantlets, 100m minitubers, and 40,000 basic seeds annually. It also has a 5,000 m ² greenhouse for aeroponics that can produce 5m minitubers annually. It has 3 air-controlled storage rooms (13,000 m ² for each) with a total storage capacity of 90,000 t. The company also established long-term cooperation with the Chinese Academy of Agricultural Sciences, China Agricultural University and Zhangjiakou Academy of Agricultural Sciences.
Code	Production 09
English Name	Yanbei Group
Chinese name	张家口市燕北薯业开发有限公司
Ownership	Private
Registration ID	130700000005233
Website	www.ybpotato.com
Province	Hebei
Address	1# Yanbei Road, Zhangbei Economic Development Zone, Zhangjiankou City, Hebei, China
Legal representative	Qing Dong
Position	Chairman
Contact person	Ming He
Position of contact person	Manager Assistant
Telephone	+86-313-5212288/+86-13335394864
E-mail	yanbeimsc@163.com
Fax	+86-313-5221355
Established time	12/19/2006
Registered capital	30m RMB
Employee	300
Main products	
Main business	
Company profile	Yanbei (Group) Corporation is a comprehensive modern business group engaged in potato breeding, cultivation, storage and processing. Currently it has one parent company and three subsidiaries. 1) Yanbei Potato Industry Development Co., Ltd., the parent company, can produce 20,000 t of potato

flakes, 20,000 t of fresh potato and other derivative products. The “Yanbei Flakes” are sold to food companies in Orion, Dadi and Dingda, etc. 2) Inner Mongolia Hengyuan Agriculture Co., Ltd. in Taipusiqi can produce 10,000 t of French fries annually and has a potato cultivation base of 666.7 ha. 3) Zhangjiakou Bangcheng Potato Industry Co., Ltd. in Guyuan County plans to produce 10,000 t of French fries annually. 4) Zhangbei Yanbei Agriculture Development Co., Ltd. in Zhangbei County has a tissue culture center of 1,000 m² and a potato multiplication base of 666.7 ha. It can produce 20m minitubers, 200 t of basic seeds, and 10,000 t of certified seeds.

Code	Production 10
English Name	Gansu Ailan Seed Potato Co., Ltd.
Chinese name	甘肃爱兰马铃薯种业有限责任公司
Ownership	Private
Registration ID	916211027190926391
Website	
Province	Gansu
Address	Xichuan Park, Anding Zone, Dingxi City, Gansu, China
Legal representative	Ailan Zhou
Position	Chairman
Contact person	Ailan Zhou
Position of contact person	Chairman
Telephone	+86-932-8265969
E-mail	dxailanshy@163.com
Fax	+86-932-8265969
Established time	6/25/2001
Registered capital	50m RMB
Employee	
Main products	
Main business	Seed/fresh potato
Company profile	Gansu Ailan Potato Seed Co., Ltd. is a professional company engaged in potato breeding, virus-free plantlets, seed production, and industrial development. It has 6,160 m ² of tissue culture room, 800 m ² of breeding lab, 560 greenhouses, 5.3 ha of net house for minituber production, 1,333.3 ha of storage space, 93 sets of equipment for tissue culture, and 86 sets of equipment for field cultivation. It can produce 150m minitubers and has 1,666.7 ha of standard production base and demonstration base.
Code	Production 11
English Name	Chengde YongFeng Seeds Co., Ltd.
Chinese name	承德永丰种业有限公司
Ownership	Private

Registration ID	91130828757548940L
Website	www.yfzy.com.cn
Province	Heibei
Address	Siheyong Industry Park, Weichang County, Chengde City, Hebei
Legal representative	Yong Yu
Position	General Manager
Contact person	Weichao Li
Position of contact person	Manager of Market
Telephone	+86-13313145800
E-mail	cdyfzy@126.com
Fax	+86-341-7840638
Established time	2/13/2004
Registered capital	30m RMB
Employee	
Main products	
Main business	Seed
Company profile	The headquarter of Chengde YongFeng Seeds Co., Ltd. covers an area of 20 ha. The company has 38 sets of large-scale irrigation facilities, 10,000 m ² of storage space, 2,000 m ² of tissue culture room, 150,000 m ² of net house, 2,000 ha of seed multiplication base with a total productivity of 40m plantlets, 100m minitubers, 10m microtubers, and 40,000 t of basic seeds.

Code	Production 12
English Name	Ningxia Modern Agriculture Group Co., Ltd.
Chinese name	宁夏现代农业集团有限公司
Ownership	State-owned
Registration ID	91640000574857484M
Website	http://www.nxxdnyjt.com/
Province	Ningxia
Address	908# Hedong Road, Yingchuan City, Ningxia, China
Legal representative	Guangrong Xu
Position	Chairman
Contact person	Hu Wang
Position of contact person	Manager
Telephone	+86-18695118340
E-mail	18695118340@163.com
Fax	
Established time	6/7/2011
Registered capital	582.61m RMB
Employee	
Main products	
Main business	Seed/fresh potato/Starch
Company profile	Ningxia Modern Agriculture Group established their potato multiplication

system in 2012 to produce potato that can meet the market requirements. The group grows more than 1,333.3 ha of potato annually, and its subsidiary established a line for potato starch production which can produce 10,000 t of starch annually.

Code	Production 13
English Name	Beidahuang Potato Group Co., Ltd.
Chinese name	北大荒马铃薯集团有限公司
Ownership	State owned
Registration ID	91233000677471963T
Website	http://www.chinabdh.com/bdhsy/index.jhtml
Province	Heilongjiang
Address	175# Hongqi Street, Nangang Zone, Harbin City, Heilongjiang, China
Legal representative	Shun Li
Position	Chairman
Contact person	Mingan Li
Position of contact person	Deputy Manager
Telephone	+86-18045641988
E-mail	kslimingan@126com
Fax	
Established time	8/11/2008
Registered capital	914m RMB
Employee	
Main products	
Main business	Seed/fresh potato/Starch
Company profile	Beidahuang Potato Group Co., Ltd. is one of the 15 subsidiaries of Beidahuang Group. It can produce 10m minitubers and process 700,000 t of potato and 240,000 t of cassava annually. The 8 main products include potato starch, cassava starch, potato flakes, seed potato and fresh potato, etc. It ranks the 1st among potato starch processing companies in China. It grows 20,000 ha of potato annually, mainly materials for processing.

Code	Production 14
English Name	Hebei Jiuen Agricultural Development Co., LTD.
Chinese name	河北久恩农业开发有限公司
Ownership	Private
Registration ID	91130724694660889J
Website	http://www.9nny.com/
Province	Hebei
Address	Huanggainao Township, Guyuan County, Heibei, China
Legal representative	Jiuen Wang
Position	Chairman

Contact person	Jiuen Wang
Position of contact person	Chairman
Telephone	+86-15031393901
E-mail	wangjn@sina.com
Fax	
Established time	9/9/2009
Registered capital	10m RMB
Employee	30
Main products	
Main business	Seed/fresh potato
Company profile	Hebei Jiuen Agricultural Development Co., Ltd. has 480 m ² of tissue culture room and 18.3 ha of greenhouse and net house for minituber production. The facility can produce 30m minitubers annually. It also has 1,000 ha of arable land for seed production and 666.7 ha of land for fresh potato production. Besides, they have transferred 3,000 ha of land from farmers for potato production. Every year, they sell 450,00 t of seed potato to Hebei, Shandong, Inner Mongolia and Guangdong etc. and 30,000 t of fresh potato to Oishi, Pepsi and Lambweston, etc.
Code	Production 15
English Name	Zhangjiakou Qizhi Seed Potato IndustryCo., Ltd.
Chinese name	张家口奇志马铃薯种业有限公司
Ownership	Private
Registration ID	91130722557687970F
Website	www.qizhipotato.com
Province	Hebei
Address	Chenyanggou, Zhangbei Township, Zhangbei County, Hebei, China
Legal representative	Jianhua Guo
Position	Chairman and Managing Director
Contact person	Xiangqian Ma
Position of contact person	Deputy Manager
Telephone	+86-13613138383
E-mail	qizhipotato@qq.com
Fax	
Established time	7/2/2010
Registered capital	5m RMB
Employee	48
Main products	
Main business	Seed
Company profile	Zhangjiakou Qizhi Seed Potato Industry Co., Ltd. has a 660-m ² center for virus-free seed multiplication, a 120-m ² room for seed inspection and detection, 5,000 m ² of greenhouse for breeding, 120,000 m ² of net house for minituber production, 3,800 m ² of storage facilities, and a 800-ha base for basic seed

production. It can produce 15m plantlets, 45m minitubers, and 15,000 t of basic seeds annually. It also selects new varieties with good shape, yield and quality such as 'Qizhi 1' and 'Qinzhi 2'.

Code	Production 16
English Name	Zhangjiakou Danong Seed Potato Industry Co., Ltd.
Chinese name	张家口大农种业有限公司
Ownership	Private
Registration ID	130722000004008
Website	http://www.zjkdny.com/
Province	Hebei
Address	Desheng Village, Xiaoertai Township, Zhangbei County, Heibei, China
Legal representative	Zhou Zhu
Position	Chairman
Contact person	Jinkai Li
Position of contact person	General Manager
Telephone	+86-13582430753
E-mail	1253045470@qq.com
Fax	
Established time	3/5/2010
Registered capital	10m RMB
Employee	25
Main products	
Main business	Seed
Company profile	Zhangjiakou Danong Seed Potato Industry Co., Ltd. has a 100-m ² tissue culture room, a 100-m ² room for seed inspection and detection, 4 ha of house for minituber production, 333.3 ha of field for basic seed production and 333.3 ha of field for certified seed production. It can produce 12,500 t of basic seeds and 15,000 t of certified seeds annually. It also has a storage capacity of 2,000 t.

Code	Production 17
English Name	Guyuan Hejian Agriculture Development Co., Ltd.
Chinese name	沽源县禾佳农业开发有限责任公司
Ownership	Private
Registration ID	911307245968211409
Website	
Province	Hebei
Address	Sulutun, Guyuan County, Hebei, China
Legal representative	Zhanwang Gao
Position	Chairman
Contact person	Zhanwang Gao
Position of contact person	Chairman

Telephone	+86-13381281806
E-mail	gaozw88@126.com
Fax	
Established time	5/29/2012
Registered capital	10m RMB
Employee	100
Main products	
Main business	Seed/fresh potato
Company profile	Guyuan Hejian Agriculture Development Co., Ltd. has 3.3 ha of net house and 6m ha of potato field. It can produce 12.5m minitubers, 3,000 t of basic seeds, 4,500 t of certified seeds, and 10,000 t of fresh potato annually. It also has 3 advanced storage rooms with a capacity of 8,000 t.
Code	Production 18
English Name	Guyuan Zhongfeng Agriculture Co., Ltd.
Chinese name	沽源县种丰农业有限公司
Ownership	Private
Registration ID	130724000002454
Website	
Province	Hebei
Address	Qiaodongdajie, Oingdingbao Township, Guyuan County, Hebei, China
Legal representative	Jinming Yuan
Position	Chairman
Contact person	JinchengYuan
Position of contact person	Chairman
Telephone	+86-18931316523
E-mail	liucegyzf@163.com
Fax	
Established time	1/13/2011
Registered capital	5m RMB
Employee	36
Main products	
Main business	Seed/fresh potato
Company profile	Guyuan Zhongfeng Agriculture Co., Ltd. has 3,800 m ² of intelligent greenhouse, 800 m ² of constant-temperature storage space and ordinary storage space with a capacity of 15,000 t. It also has 6.7 ha of net house and 200 ha of potato field. It can produce 12m minitubers, 300 t of basic seeds, and 1,500 t of certified seeds.
Code	Production 19
English Name	Guyuan County Tuda Potato Planting Co., Ltd.
Chinese name	沽源县土达马铃薯种植有限公司
Ownership	Private

Registration ID 130724000001236
Website <http://www.weixingshu.com/>
Province Hebei
Address Pingdingbao Township, Guyuan County, Zhangjiakou City, Hebei, China
Legal representative Mei Liu
Position Chairman
Contact person Mei Liu
Position of contact person Chairman
Telephone +86-13831321492
E-mail 846845321@qq.com
Fax
Established time 10/31/2008
Registered capital 5m RMB
Employee
Main products
Main business Seed
Company profile Guyuan County Tuda Potato Planting Co., Ltd. has 1,000 m² of greenhouse, 6.7 ha of net house, and 200 ha of field for seed multiplication. It can produce 8m plantlets, 15m minitubers, and 6,000 t of basic seeds annually.

Code Production 20
English Name Zhongnong Seed Industry
Chinese name 张家口中农坝上种业有限公司
Ownership Private
Registration ID 130702000024214
Website <http://www.zbseeds.com/>
Province Hebei
Address Kangbao Ranch, Kangbao County, Hebei, China
Legal representative Zhijun Zhang
Position Chairman
Contact person Chengxiu Tian
Position of contact person Technician
Telephone +86-13582630695
E-mail zhongbaxy@163.com
Fax
Established time 10/16/2012
Registered capital 30m RMB
Employee 35
Main products
Main business Seed
Company profile Zhongnong Seed Industry has 9,000 m² of facilities for tissue culture, hydroponic, aeroponics and virus testing, including 500 m² of tissue culture room, 500 m² of intelligent greenhouse, and 8,000 m² of greenhouse. It also

has 500 m² of pre-storage space, 530 m² of cool storage space for minitubers, and sub-ground storage space with a capacity of 2,000 t. The company also has advanced equipment for soil preparing, planting, fertilizing, intertillage, plant protecting and harvest etc. The technologies of drip irrigation under film and fertigation were used in basic seed and certified seed production. The company has close exchanges with companies from home and abroad.

Code	Production 21
English Name	Shengyuan Potato Industry Co., Ltd.
Chinese name	张家口市盛源薯业有限公司
Ownership	Private
Registration ID	911307095881980613
Website	http://www.zjksysy.com/
Province	Hebei
Address	Shagou Township, Chabei region, Zhangjiakou City, Hebei
Legal representative	Zhichen Hou
Position	Chairman
Contact person	Zhichen Hou
Position of contact person	Chairman
Telephone	+86-13803134455
E-mail	zjksysy@126.com
Fax	
Established time	1/11/2012
Registered capital	10m RMB
Employee	
Main products	
Main business	Seed
Company profile	Shengyuan Potato Industry Co., Ltd. has a center for potato tissue culture, 2.7 ha of net house for minituber production and 200 ha of field for basic seed production. It can produce 8m plantlets, 10m minitubers, and 6,000 t of basic seed annually. And it also has 3,000 m ² of potato storage space.

Code	Production 22
English Name	Yunnan Yinmao Morden Agriculture Co., Ltd.
Chinese name	云南英茂现代农业有限公司
Ownership	Private
Registration ID	915300003095968939
Website	http://www.yinmore.com/
Province	Yunnan
Address	739# Tianchi Road, Kunming City, Yunnan
Legal representative	Zhijian Wang
Position	Chairman and Manager Director

Contact person	Zhijian Wang
Position of contact person	Chairman and Managing Director
Telephone	+86-13808715858
E-mail	wangzhijian@yinmore.com
Fax	
Established time	7/21/2014
Registered capital	128m RMB
Employee	
Main products	
Main business	Potato seed and Flower
Company profile	Yunnan Yinmao Morden Agriculture Co., Ltd. is one of the wholly-owned subsidiaries of Yinmao Group. Its predecessor, Yunnan Yinmao Flower Industry Co., Ltd. was established in 1996. It mainly works on flower cutting, flower potting and potato production.
Code	Production 23
English Name	Lijiang Bofu Morden Agriculture Technology and Science Development Co., Ltd.
Chinese name	丽江伯符农业科技发展有限公司
Ownership	Private
Registration ID	91530721681279181B
Website	
Province	Yunnan
Address	Taian Township, Yulong County, Lijiang City, Yunnan
Legal representative	Wenfang Song
Position	Manager director
Contact person	Wenfang Song
Position of contact person	Manager director
Telephone	+86-15284471641
E-mail	songwenfangjinli@126.com
Fax	
Established time	11/20/2008
Registered capital	5m RMB
Employee	
Main products	
Main business	
Company profile	
Code	Production 24
English Name	Yulin Haoge Potato Industry Co., Ltd.
Chinese name	榆林郝哥薯业有限公司
Ownership	Private
Registration ID	91610802681585613C

Website	www.dadiseed.com
Province	Shaanxi
Address	Mataihe Township, Yuyang Zoon, Yulin City, Shaanxi Province, China
Legal representative	Yufei Zhang
Position	Manager director
Contact person	Lei Chen
Position of contact person	
Telephone	+86-13891292468
E-mail	sxddzy@126.com
Fax	
Established time	12/18/2008
Registered capital	5m RMB
Employee	
Main products	
Main business	Seed
Company profile	Yulin Haoge Potato Industry Co., Ltd. is one of the wholly-owned subsidiaries of Shaanxi Dadi Seed Co., Ltd.. It has a 4,000-m ² tissue culture center, 4,000 m ² of greenhouse, 60,000 m ² of net house, and 10,000 m ² of storage space. It can produce 20m plantlets, 30m minitubers, 10,000 t of pre-basic seeds, and 25,000 t of basic seeds. It can provide potato seeds for 26.7 thousand ha of potato field around Yulin.
Code	Production 25
English Name	Gansu Tianrun Potato Industry Co., Ltd.
Chinese name	甘肃天润薯业有限责任公司
Ownership	Private
Registration ID	91620725670843840W
Website	http://www.yasheng.com.cn
Province	Gansu
Address	7# Shanma Road, Shandan County, Zhangye City, Gaunsu Province, China
Legal representative	Xilin Zhang
Position	Chairman
Contact person	Xilin Zhang
Position of contact person	Chairman
Telephone	+86-13993668562
E-mail	2366474587@qq.com
Fax	
Established time	5/14/2008
Registered capital	30m RMB
Employee	29
Main products	
Main business	Seed/Ware potato
Company profile	Gansu Tianrun Potato Industry Co., Ltd. is one of the wholly owned subsidiaries

of Gansu Yasheng Industrial (Group) Co., Ltd. It has 2,251 m² of greenhouse for tissue culture, 15 greenhouses (8,970 m²), 18 net houses (86,100 m²), 4,841 m² of mechanical ventilation storage space (3,500 t), and 1,600 m² of cool storage space. It can produce 50m pre-basic seed minitubers, 16,000 t of basic seeds, 10,000 t certified seeds, and 10,000 t of ware potato annually.

Code Processing 01
English Name PepsiCo food (China) Co., Ltd.
Chinese name 百事食品 (中国) 有限公司
Ownership Wholly foreign venture
Registration ID 913100006073993000
Website <http://www.pepsico.com.cn> <http://www.lays.com.cn>
Province Shanghai
Address #99 Dongxing Road, Songjiang Industry region, Shanghai, China
Legal representative Yuechen Shi
Position Chairman
Contact person Yuqing Huang
Position of contact person Senior Manager in Agriculture department
Telephone +86-21-23058161
E-mail vicky.huang@inti.pepsico.com
Fax +86-21-23058010
Established time 11/8/1998
Registered capital 69m RMB
Employee
Main products
Main business Lay's chips
Company profile

Code Processing 02
English Name Dali Foods Group
Chinese name 达利食品集团有限公司
Ownership Wholly foreign venture
Registration ID 91350000611541826X
Website <http://dali-group.com/>
Province Fujian
Address Linkou Village, Zishan Township, Huian County, Quanzhou City, Fuzhou Province, China
Legal representative Shihui Xu
Position Chairman
Contact person
Position of contact person
Telephone +86-595-87335077/87333507

E-mail dljtbgs@163.com
Fax
Established time 2/10/1993
Registered capital 1.45bn
Employee
Main products
Main business Copico chips
Company profile Dali Foods Group has 18 subsidiaries in 16 provinces in China, including 30 bases for food and beverage production, 1 base for potato flake production and 1 company for printing & packaging. It has also established "gold sales channels" that cover the whole country. "Daliyuan cake," "Haochidiang cooking," and "Copico chips" are three leading snack brands under Dali. It also owns famous beverage brands like "Heqizheng cool tea," "Daliyuan peanut milk," and "Lehu functional drink."

Code Processing 03
English Name Liwayway (China) Co., Ltd.
Chinese name 上好佳 (中国) 有限公司
Ownership Wholly foreign venture
Registration ID 9131000060742052XD
Website <http://www.oishi-tm.com/index.htm>
Province Shanghai
Address 2277-2299 Hu Qing Ping Road, Shanghai, China
Legal representative Xueli Shi
Position Deputy manager
Contact person Shoudong Chen
Position of contact person Deputy Director
Telephone +86-21-59898888-Ext. 636 or 59898636
E-mail chengshoudong@oishi-tm.com
Fax +86-21-59898636
Established time 8/2/2000
Registered capital 25.6m RMB
Employee
Main products
Main business Oishi chips/stix
Company profile

Code Processing 04
English Name Kunming Zidi Food Co., Ltd
Chinese name 昆明子弟食品有限公司
Ownership Private
Registration ID 530100400002671

Website	http://www.zidifood.com/
Province	Yunnan
Address	Daguanglou Village, Kunming City, Yunnan Province, China
Legal representative	Piqiang Huang
Position	Chairman
Contact person	Silie Huang
Position of contact person	General Manager
Telephone	+86-871-8240677/8240636/8242988
E-mail	zd@zidifood.com
Fax	+86-871-8240668
Established time	8/26/1998
Registered capital	58m RMB
Employee	
Main products	
Main business	Zidi Chips
Company profile	Kunming Zidi Food Co., Ltd. is a professional food company, mainly engaged in potato chip development, production and marketing. It uses the most advanced potato chip processing technology, supported by rigorous and scientific production technology and standard and strict production process control. Since "Zidi" natural potato chips entered the market, it has become the top brand among similar products in Yunnan Province due to its excellent product quality, special flavors and the efficient and precise marketing, and the chips are deeply welcomed by consumers. The company established potato planting bases in Yunnan in the form of "company + base" to guide farmers to produce high-quality potato and bring them benefit. Over the years, the value of the potato produced by farmers under company support has reached 40m RMB, and more than 30,000 farmers' income has increased.

Code	Processing 05
English Name	Yunnan Angel Food Co., Ltd.
Chinese name	云南天使食品有限责任公司
Ownership	State-owned
Registration ID	530000000017508
Website	http://www.angelfood.cn/
Province	Yunnan
Address	288# Chuangfengdong Lu, Kunming City, Yunnan Province, China
Legal representative	Zhi Yi
Position	Executive director and general manager
Contact person	Hui Dong
Position of contact person	
Telephone	+86-871-64311344/13888850788
E-mail	tssp_2016@163.com/690580197@qq.com
Fax	+86-871-64311344

Established time	3/27/1991
Registered capital	7.53m
Employee	
Main products	
Main business	Chips
Company profile	
Code	Processing 06
English Name	Yunnan Yudian Starch Co., Ltd.
Chinese name	云南云淀淀粉有限公司
Ownership	Private
Registration ID	915303815873825379
Website	http://www.yndianfen.com/
Province	Yunnan
Address	Wude Township, Xuanwei City, Yunnan Province, China
Legal representative	Yinghui Lin
Position	Executive director
Contact person	Yinghui Lin
Position of contact person	Executive director
Telephone	+86-874-7071111/+86-15187870088
E-mail	361707098@qq.com
Fax	+86-874-7071111
Established time	12/27/2011
Registered capital	20m
Employee	
Main products	
Main business	Starch
Company profile	Yunnan Yudian Starch Co., Ltd. covers an area of 60,000 m ² with a total investment of 122m RMB. It has a potato starch processing line with a total processing capacity of 50,000 t. The lines include a potato residue and sewage disposal system to solve the contamination problem. The products are widely used in food, medicine and chemical industry, etc. Their products are exported to over 20 provinces and cities and are deeply welcomed by customers.
Code	Processing 07
English Name	Sichuan Guangyou Co.,Ltd.
Chinese name	四川光友薯业有限公司
Ownership	Private
Registration ID	91510700MA6241F773
Website	http://www.guang-you.com/
Province	Sichuan
Address	8# Huojuxijie, high-tech industrial development zone, Mianyang City, Sichuan

	Province, China
Legal representative	Guangyou Zou
Position	Chairman
Contact person	Guangyou Zou
Position of contact person	Chairman
Telephone	+86-13909019501/+86-8162533132
E-mail	zgy89@sina.com
Fax	+86-816-2538191
Established time	10/6/1993
Registered capital	67.52m RMB
Employee	
Main products	
Main business	Guangyou Instant Potato Noodle
Company profile	
Code	Processing 08
English Name	Ningxia Jiali Biology Technology Co., Ltd.
Chinese name	宁夏佳立马铃薯产业有限公司
Ownership	Private
Registration ID	916404227632120522
Website	
Province	Ningxia
Address	Xiji County, Ningxia Province, China
Legal representative	Yuguo Liu
Position	
Contact person	
Position of contact person	
Telephone	
E-mail	
Fax	
Established time	8/29/2004
Registered capital	18m RMB
Employee	
Main products	
Main business	
Company profile	Ningxia Jiali Biology Technology Co., Ltd. mainly works on potato planting, marketing and starch & flake processing. It has three production lines for potato starch processing with a capacity of 50,000 t, 2 lines for potato flake processing, and a 666.7-ha planting base for seed multiplication. The processing lines are introduced from USA, Netherland, and Poland. The "Lanou" potato starch and flakes are sold to 25 provinces in China and 10 other countries including Germany, USA, Italy, Mexico, and Indonesia.

Code	Processing 09
English Name	Yunnan Lishi Industry (Group) Co., Ltd.
Chinese name	云南理世实业 (集团) 有限责任公司
Ownership	Private
Registration ID	530621100000666
Website	http://www.ynlishi.cn/
Province	Yunnan
Address	358# Wenpingdonglu Ludian County, Yunnan Province
Legal representative	Bin Li
Position	Executive director
Contact person	Wuansheng Liu
Position of contact person	
Telephone	+86-870-8126366/+86-15368287555
E-mail	ynlsjt008@163.com
Fax	+86-870-8124788
Established time	5/6/2003
Registered capital	36m RMB
Employee	
Main products	
Main business	Mulula Chips
Company profile	Yunnan Lishi Industry (Group) Co., Ltd. is a Halal food company. Its main products are "Mulula" brand potato chips and highland beef products. The company has obtained certificates of QS, HACCP and ISO9001. With years of steady development, the company has been recognized as provincial- and city-level leading agro-enterprise, and is among the top 100 enterprises and the top 15 agro-processing enterprises in Yunnan Province. The company's brand "Lumimi" was rewarded the title "Famous Brand in Yunnan Province" for 3 consecutive years, and is among the top 10 national brands. Currently it has five wholly-owned subsidiaries and three equity subsidiaries.

Code	Processing 10
English Name	Orion (Guangzhou)
Chinese name	好丽友食品 (广州) 有限公司
Ownership	Wholly foreign venture
Registration ID	440101400009615
Website	http://www.orion.cn/
Province	Guangdong
Address	15# Jingunanlu Huadong Township, Guangzhou City, Guangdong Province
Legal representative	Shijie Zhang
Position	Chairman
Contact person	
Position of contact person	

Telephone	+86-020-8675-7777
E-mail	orioncn@orion.com.cn
Fax	+86-20-8675-7775
Established time	1/3/2008
Registered capital	\$40m
Employee	
Main products	
Main business	
Company profile	Orion was established in 1956. It is one of the four biggest food companies in Korea. In the middle of 1990s, Orion entered the China market and decided to make its business in China the biggest piece of the global pie. Orion invested more than \$50m to set up two branches, one in Guangzhou and one in Shanghai.

Code	Processing 11
English Name	Orion (Shanghai)
Chinese name	好丽友食品 (上海) 有限公司
Ownership	Wholly foreign venture
Registration ID	91310000607378253W
Website	http://www.orion.cn/
Province	Shanghai
Address	#5151 Waiqingsonggonglu, Qingpu Industry Park, Shanghai City, China
Legal representative	Shijie Zhang
Position	Chairman
Contact person	
Position of contact person	
Telephone	+86-21-6921-1888
E-mail	orioncn@orion.com.cn
Fax	+86-21-6921-1889/
Established time	9/24/1997
Registered capital	\$30.98m
Employee	
Main products	
Main business	
Company profile	

Code	Processing 12
English Name	Lambweston
Chinese name	蓝威斯顿 (上海) 商贸有限公司
Ownership	Wholly foreign venture
Registration ID	310000400597643
Website	http://www.lambweston.com.cn/
Province	Shanghai

Address	500# Hongbaoshi Road, Changning Zoo, Shanghai
Legal representative	FOO SAK KEAN
Position	Chairman
Contact person	
Position of contact person	
Telephone	
E-mail	
Fax	
Established time	4/28/2009
Registered capital	\$0.7m
Employee	
Main products	
Main business	
Company profile	
Code	Processing 13
English Name	Taimei Potato Industry Co., Ltd.
Chinese name	太美薯业有限公司
Ownership	Wholly foreign venture
Registration ID	91150900561224602J
Website	
Province	Inner Mongolia
Address	Industrial Park, Shangdu County, Wulanchabu City, Inner Mongolia, China
Legal representative	Carl Bennett Coombes
Position	General manager , executive directors
Contact person	
Position of contact person	
Telephone	+86-474-2271500
E-mail	
Fax	+86-474-2271511
Established time	9/25/2010
Registered capital	\$46m
Employee	
Main products	
Main business	
Company profile	Taimei Potato Industry Limited, a wholly foreign-owned enterprise with a total investment of \$99m and registered capital of \$46m, was established in mainland China by Hong Kong-based TaiMei Agriculture Limited. The company is a processor and distributor of French fries, potato granules, potato flakes, mashed potato, potato waffles, hash browns and tomato paste products, and is also engaged in cultivation, high-tech agricultural research & development, and storage of agricultural products. The company is a large-scale potato product processor focusing on cultivation, procurement, storage, production

and sales. TaiMei factory covers 23 ha with an investment of 500m RMB, and the factory has an annual capacity for processing 50,000 t of French fries and 50,000 t of potato flakes. It has a storage capacity of 100,000 t of potato and has 3,300 ha of cultivation area.

Code	Processing 14
English Name	Hubei Renseng Agriculture Science and Technology Co., Ltd.
Chinese name	湖北任森农业科技有限公司
Ownership	Private
Registration ID	91420500691759365X
Website	http://www.linlaotou.net/
Province	Hubei
Address	689# Changyang Dadao, Changyang Economy Development Zoon, Changyang County, Hubei Province, China
Legal representative	Yeshi Lin
Position	Chairman and Direct manager
Contact person	
Position of contact person	
Telephone	+86-717-5900999
E-mail	linlaotou@hbrskj.com.cn
Fax	
Established time	7/21/2009
Registered capital	50m RMB
Employee	
Main products	
Main business	Lin Lao Tou"
Company profile	Hubei Renseng Agricultural Science and Technology Co., Ltd. covers an area of 34,000 m ² and is mainly engaged in potato/sweetpotato starch production, marketing and R&D. It also produces and develops organic fertilizer, plant protein, and dietary fiber, etc. It has invested 123m RMB. It has an RTC production capacity of 120,000 t and an organic fertilizer production capacity of 10,000 t.

Code	Processing 15
English Name	Hubei Wuling Mountain Ecological Agriculture Co., Ltd.
Chinese name	武陵山生态农业股份有限公司
Ownership	Private
Registration ID	91422800673665947W
Website	http://www.hbwlstny.com/
Province	Hubei
Address	Jinguidadao, Enshi City, Hubei Province
Legal representative	Hongbo Liu
Position	Chairman

Contact person
Position of contact person
Telephone +86-718-8425668
E-mail 2410846866@qq.com
Fax +86-718-8425668
Established time 4/21/2008
Registered capital 150m RMB
Employee
Main products
Main business
Company profile Hubei Wuling Mountain Ecological Agriculture Co., Ltd. is mainly engaged in potato planting, producing, processing and R&D. It has 8 professional potato planting cooperatives and signed contracts with farmers to grow 10,000 ha of potato. The company invested 120m RMB to establish a base for raw material production and a 32,000-m² processing base. It will purchase a line from the Netherlands for potato deep processing. It also registered the brands of "Maerke potato," "Mira potato," "Tianchishan potato," and "Xi potato" to sell potato/potato products rich in Se.

Code Processing 16
English Name McCain food (Harbin) Co., Ltd.
Chinese name 麦肯食品有限公司
Ownership Wholly foreign venture
Registration ID 230199400002611
Website <http://www.mccain.com.cn>
Province Heilongjiang
Address 1# Qingdaolu, Jizhong Block, Haping Road, Development Region, Harbin City, Heilongjiang Province
Legal representative Claudia
Position Chairman
Contact person
Position of contact person
Telephone +86-451-87035333
E-mail customerservicechina@mccain.ca
Fax +86-451-86810917
Established time 8/18/2004
Registered capital \$73.8m
Employee
Main products
Main business
Company profile McCann Foods is the world's largest producer of frozen French fries and appetizers. Nearly 1/3 of the world's French fries come from McCann. It has more than 60 factories on six continents in the world and has production lines

in more than 110 countries with more than 22,000 employees. Since McCann entered China in 1994, it has been committed to the development and cultivation of high-quality potato and has provided world-class quality fries products for the Chinese market. McCann began to conduct potato field experiments in China in 1994 and established its sales representative office in Shanghai in 1997, which mainly imports products from Canada, the United States, Australia, and New Zealand. In 2004, a modern French fries production and processing plant—McCann food (Harbin) Co., Ltd. was established.



The International Potato Center (known by its Spanish acronym CIP) is a research-for-development organization with a focus on potato, sweetpotato, and Andean roots and tubers. CIP is dedicated to delivering sustainable science-based solutions to the pressing world issues of hunger, poverty, gender equity, climate change, and the preservation of our Earth's fragile biodiversity and natural resources.

www.cipotato.org



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