

# Chaoyang records fast development

By Zheng Yanyan

Chaoyang in Liaoning Province has developed fast since the policy of revitalizing old industrial bases in Northeast China was implemented last year.

The city, located in the western part of the province, covers 19,000 square kilometres and has a population of 3.35 million, including 2.49 million rural population.

Six railways and 10 arterial highways pass through the city. Using the Chaoyang-Jinzhou Expressway, a traveller can reach Shenyang, the capital of Liaoning Province, in three hours, and Beijing in five hours.

The city, with 1,500 foreign-invested firms, has developed economic relations as well as cultural exchange with more than 100 countries and regions in the world.

Eighty varieties of products in 14 categories are exported, and exportation earnings are on a steady increase.

As foreign investors shift focus from the international to the domestic market and the capital flow and industry shift from advanced regions such as Southeast China quickens further, the city is offered with unprecedented opportunities.

## Industry

The city plans to build itself into a base for cars and parts, construction materials and machines, and food processing. And it puts great emphasis on the metallurgical,

chemical and textile industries. Cultivating high-tech sectors and key firms is also a main task.

Chaoyang Wireless Component Co Ltd produced the delicate components for the Shenzhou space shuttles.

The Lingyuan Steel Group is famous nationwide for its high-level management.

Dongfeng Chaoyang Company, China's largest factory producing light-duty diesel engines, ranked No 1 in production and sales.

Dongfeng Chaoyang Siyi Company is the special production base for Dongfeng Auto Company in Northeast China.

Brake drums and plates and wheel hubs produced by Feima Foundry Company are all sold to 40 countries and regions including the United States, Germany, France and Britain.

There are 300 types of industry products, including autos, steel, tyres, diesel engines, ceramics, building materials and machines. They are exported to 60 countries and regions in Asia, Europe and the United States.

The city owns 22 scientific and research institutions, which have a comparatively strong technology developing ability.

## Agriculture

The city boasts a unique climate of long sunshine hours, and the temperature varies greatly between day and night, all of which provides favourable growth conditions for crops.



Dalinghe River has become one of the most beautiful scenic spots in Chaoyang city - after treatment.

QIU YUJUN

With five water systems running through the city and great biodiversity, the city has 400,000-hectares of cultivated area.

The city has made progress in upgrading agricultural structure, fostering three leading sectors of livestock husbandry, reservation and forest and fruit.

In addition, greenery and special agriculture develop fast, with an all-season vegetable production base that ranks first in the country.

Cotton output ranks first in the province. The city's coarse food grains, buckwheat, millet, red beans and green beans are also renowned for their quality.

Livestock breeding is traditionally an advanced sector in the city. The output of cattle, sheep and rabbits ranks first in the province.

It also boasts 70,000 hectares of planted sea buckthorn forest. The amount of planted Chinese pine forest coverage ranks first in Asia, and fruit output ranks fourth in the province.

And the city is one of the four largest almond-producing areas of the whole country and first in the province.

The city's flowers and plants sector is becoming more prominent, with 60 varieties sold to 30 cities including Harbin, Beijing, Shanghai, Fuzhou and Guangzhou.

## Resources

The city boasts bountiful resources.

It is rich in mining resources, with wide distribution, a large assortment and great development potential.

It leads the province in gold output, its manganese reserves rank first in Northeast China and its output of molybdenum in fourth in the region.

Silica, bentonite, limestone and kaolin have large deposit and are of good quality.

At present, there are still 57 mines are awaiting for developing and utilizing.

Fossils are widespread in the city and are well-preserved.

Unearthed bird fossils in Chaoyang have caused bird evolution to be rewritten, and they are considered a treasure in the world.

## Infrastructure construction

Construction in the city has developed quickly.

Local government aims to build the city into a garden, historic and cultural city, as well as a modern city.

The city has invested almost 780 million yuan (US\$94 million) in building infrastructure and has finished at least 400 programmes in the past three years.

The urbanization level increased by 2.8 percentage points. Since 2002, 253 road shave been built, upgraded or repaired.

Also, a 52.12-kilometre system of drainage pipelines and 6,448 street lamps have been newly built or upgraded.

The urban green area covered 702.82 hectares, including 207.45 hectares of public green area, by the end of last year, with per-capita coverage of 6.71 square metres. The green coverage rate has reached 38.13 per cent.

The public transport system consists of 19 lines of 237.7 kilometres long and 101 buses.

Aiming to win the National Clean City Award, Chaoyang has issued and strictly implemented rules on environmental management.

Last year, 21 restrooms with plumbing and 422 dustbins were built in the city.

# Cultural heritage adds charm to city

By Li Fangchao

This ancient city in Northeast China's Liaoning Province has attracted the world's attention because of its rich historical and cultural heritage.

Located in the northwest part of Liaoning Province and borders on Hebei Province in the south, the Inner Mongolia Autonomous Region in the north, and situated in the middle among Beijing, Tianjin, Tangshan and other northeastern cities in China, it holds the strategic passage on the way from Northeast China to the vast middle part of China.

Because of its advantageous geographical position, Chaoyang has always been an important city since human beings appeared in northern China.

Its rich historical and cultural relics, which were unearthed in recent years, earned Chaoyang international fame.

## Renowned historic relics

Experts say that due to its vital strategic position, Chaoyang and its region around had been an important historical and cultural region in northern China. It had once served as the bridge for the cultural exchange between the ethnic minorities in Northeast China and the Han people in the vast hinterland of China.

Various economic types and cultural traditions syncretized here in Chaoyang, making it a famous historical city in Liaoning Province.

Five of the historical and cultural relics of Chaoyang had won the first title in the national competition of "the 10 new archaeological discoveries in China", an annual national event to mark the most important archaeological discoveries of the year, which has been held for the last 15 years.

Among them, the Niuheliang Ruins in Lingyuan, Liaoning Province, was considered by archaeologists as where the new hope of oriental culture lies.

The ruins are made up of a large sacrificial altar, the Goddess Temple and a group of stone burial structures.

These ruins are believed to date from a middle Neolithic society (2500 to 4000 BC) known as the Hongshan Culture and have

been the subject of Archaeo-Astronomy courses at the University of Denver.

Some archaeologists believed that this finding had added 1,000 years to Chinese civilization and has added more depth to the study of ancient ideology, society, religion, architecture, and arts of that time.

It had been voted by experts as one of the most important archaeological discoveries in China in the 20th century, and is included in China's preparatory list to apply for the World Heritage.

A total of 4,887 historic relics have been found in Chaoyang, which covers an area of 20,000 square kilometres, accounting for one third of the total number of relics discovered in Liaoning Province.

Since 1993, scientists unearthed a large amount of fossils of ancient animals and plants in Chaoyang area, making it a world famous site for archaeologists around the world.

The discoveries of dinosaurs with furs, ancient birds and mammals and angiosperm in Chaoyang are regarded as the great discoveries in paleontology field in the 20th century.

The fossils under the earth of Chaoyang possess huge scientific value.

Preliminary survey found that except several young mountain ranges, almost all the rest places contain fossils.



Jeholornis, a seed-eating bird with a skeletal tail, was found in Chaoyang.

XIE CHANGXING



Growing flower business has become a pillar industry for Chaoyang.

YANG JINXIU

# Flower industry blooms in Chaoyang

By He Na

People always use the "Two Poles" to compare the layout of China's flower industry. There is no doubt that the South Pole is the well known south China's Yunnan Province, while the so-called North Pole is Lingyuan, a city in Northeast China's Liaoning Province.

Although Lingyuan is only a small city, it is one of the largest producing bases among northern districts in China with many varieties of fresh cut flowers and bulbs, such as lilies, gladiolus and African chrysanthemums.

The fossil of China's ancient fruit discovered in Lingyuan in 1996 was acknowledged by archaeologists as the first flower in the world and the first witness of the transformation from gymnosperm to blooming plants. Therefore, Lingyuan is acclaimed to be the place where the first flower bloomed in the world.

Lingyuan's history of planting flowers could go back to the end of the 1970s. After more than 20 years' development, Lingyuan has become a city boasting an annual output of fresh-cut flowers of 170 million and 150

million pieces of corms.

To date, the cultivated areas in Lingyuan for planting flowers like lilies, gladiolus and tulips has reached over 2,333 hectares. About 8,300 hectares of sunshine plastic greenhouses for vegetables production have been partially transforming to flower planting.

Statistics show that over 40,000 people in Lingyuan work in the flower industry. And 60 per cent of the domestic market share of lilies was taken by Lingyuan and 12 well-known domestic and foreign flower companies have opened their offices in the city.

"Lingyuan has already become an international breeding base of lilies as well as being the biggest flower city in the north part of China," Tong Guangying, a flower producing expert from Taiwan, said after a visit to Lingyuan.

The domestic demand of flowers increased at the speed of 30 per cent to 40 per cent every year. In a bid to transfer the resources superiority to the economy superiority, Lingyuan municipal government took the flower industry as an important economic engine and attached great importance to adjust the agriculture industrial structure.

Chen Yuqiang, a farmer in Lingyuan, earns his living cultivating flowers. Now he plants area of four hectares and uses advanced equipment. He told China Daily his annual income reaches into a six-digit figure.

Investigating and popularizing the new species and new technology are vital to the development of flower industry. Over the past years, thanks to improvement in the technology of flower cultivation, flowers have multiplied from the previous dozens of species to more than 60 species today.

Their colours range from red, pink, purple, lavender and white to green, yellow, maroon and even black.

The local government invites experts and skilled technical personnel to help farmers in cultivating flowers more efficiently and more professionally. More than 5,000 people have participated the training by foreign business people and experts.

Lingyuan's technology of once-stubble flower, twice-stubble flower and thrice-stubble flower largely reduces the cost of production, which is only one fifth of the cost in Japan. It is much lower than the cost in Southeast Asia, Africa and Latin America.

Lingyuan City, located at the boundary of Liaoning Province, Hebei Province and Inner Mongolia, is rich in sunshine. It has a population of 640,000 people.

The soil and water quality in the city is of tiny acidity and the character of the soil is of looseness, which adapts to planting corm flowers. Plant diseases and pests have little impact on crops.

Lingyuan is also known for its long history and its magnificent archaeological findings. A New Stone Age site was discovered 20 years ago, when researchers unearthed ruins of a prehistoric kingdom that consisted of altars, temples and tombs. The site dates back between 35,000 to 6,000 years ago.

Lingyuan has rich and unique tourism resources with various natural and cultural interests. Almost half of the city is covered by forest. Every year many tourists from home and abroad visit the city to enjoy its long history and fresh air.

Now the city sees more than 500 flower brokers and over 100 flower shops all over the country arrive to do business. The flowers are sold to Beijing, Shanghai, Guangzhou, Shenyang and other large cities in China.

# Projects available for investment and co-operation

## Extension project of 2 million tons of H-section steel

Project description: On the basis of 2 million tons of steel now, the enterprise is going to reform and extend it into a project of 2 million tons of H-section steel trying to make it the largest H-section steel base in Northeast China.

Investment: US\$760 million.  
Contact person: He Dongshen.  
Tel: 0421-6838259  
Fax: 0421-6830436

## Use sweet sorghum stalk making ethanol fuel

Project description: Build a factory using sweet sorghum stalk to make ethanol fuel.

Investment: US\$120 million.  
Contact person: Jiang Shuqiu.  
Tel: 0421-7290606

## Co-operative project of Liaoning Songlin Beer Brewery Group Co Ltd.

Project description: Liaoning Songlin Beer Brewery Group Co Ltd is the largest beer brewery in western Liaoning, China. It produces 250,000 tons of beer, 10,000 tons of sallow thorn and almond milk drinks, and 20,000 tons high protein feed per year. It is a large group enterprise that includes beer, drinks, printing, plastic boxes, and animal feed and raising. Now the enterprise is actively seeking a co-operative partner to enlarge production capacity, improve product quality, and strengthen competitive ability in market.

Investment: US\$37 million (estimated).  
Contact person: Wang Xiaofeng.  
Tel: 0421-7816819 or 0421-7824708.  
Fax: 0421-7816819.

## Reconstruction project of Chaoyang

## Senyuan Activated Charcoal Incorporated Company

Project description: Based on the current yearly production of 1,500 tons of activated charcoal, establish a yearly production of 3,000 tons of high- and middle-grade active char, an apricot almond processing line that produces 5,000 tons annually, a large, refined production line with an annual capacity of 5,000 tons, a line to produce and refine 1,000 tons of timber vinegar liquid retrieve annually, a line to produce 1,000 tons of pharmaceutical activated charcoal, and one complete gas recovery heating system.

Investment: US\$14.5 million. Foreign partner's share to be settled through negotiation.

Contact person: Song Daping.  
Tel: 0421-2201999.  
Fax: 0421-2816666.

## Production line for semi-worsted, ecological spun woolen products

Project description: Plan to introduce 61 sets of advanced spinning, weaving, and dyeing equipment, as well as related technology, to develop and produce semi-worsted ecological spun woolen products using raw materials of soybean fabric, natural colour sheep's wool and rabbit's wool to try to reform the Xinlong Group.

Investment: US\$6.65 million.  
Contact person: Wang Xianhua.  
Tel: 0421-7105820.  
Fax: 0421-7195821.

## New type of dry-processed cement production line with daily capacity of 5,000 tons

Project description: After investigation, limestone in Nayingzi, Sihedang

Township, Lingyuan city is of high quality, large volume (185 million tons), and is easy to mine. It is a fine material for producing high-grade cement. Conditions near the limestone mine are good for establishing a new cement works. It is estimated that the yearly sales income will be US\$32.53 million, tax US\$9.64 million and profit US\$10.84 million.

Investment: US\$86 million.  
Contact person: Li Guoan.  
Tel: 0421-6811060.  
Fax: 0421-6816516.

## Development of bentonite series products of Jianping County

Project description: The bentonite resource in Jianping County is abundant, with the total reserves of more than 150 million tons, the largest volume in Asia. The bentonite belongs to the lacustrine volcano sediment type, unlike the natural type and industrial type, which have high montmorillonite content and high methylene blue and ph values, it is helpful for cation exchanging, artificially changing the Bentonite sort.

Contact person: Wang Xiaofeng.  
Tel: 0421-7816819.  
Fax: 0421-7816819.

## Yearly production of 2,000 tons of chicken products by Beipiao Hongfa Co Ltd

Project description: To produce 2,000 tons of various kinds of chicken products with ordinary and vacuum packaging per year. The project will be built inside the factory area of Hongfa Company. Water and electricity supply and road access are established.

Investment: US\$22.65 million.  
Contact person: Zheng Xianjun.  
Tel: 0421-5832645, ext.8528.

## 200,000 pigs butchering line by Baihui Yandu Co Ltd

Project description: Chaoyang Baihui Yandu Foodstuff Company Ltd was established in 1986. It is an important meat processing enterprise in Liaoning Province. It plans to build a new pig butchering line with a capacity of 200,000 per year and a cold warehouse with an area of 3,500 square metres to store 2,000 tons of meat.

Investment: US\$1.81 million.  
Contact person: Lei Fenghai.  
Tel: 0421-3812878.  
Fax: 0421-3875336.  
E-mail: wangb01557@163.com

## Producing sea-buckthorn protein and OPC natural healthy products

Project description: Sea-buckthorn fruit was ordinary herb medicine used by Tibetan and Mongolian doctors to cure disease. It is good for lungs, and stomach. In 1997, the Ministry of Health listed it in China Traditional Herb Medicine Dictionary. We use high technology method to take out OPC from sea-buckthorn fruit to produce healthy products.

Investment: US\$3.32 million, including foreign investment of US\$2.3 million; Chinese investment US\$1.02 million.

Contact person: Zhang Lei.  
Tel: 0421-7816476.

## Producing 1.2 million sets of all-steel radial truck tyres per year

Project description: Based on the existing production technology and management experience for manufacturing all-steel radial truck tyres, we plan to introduce a mixing machine, a

beading machine, a forming machine, a vulcanizing machine, an X-ray monitor, a boiler and other equipment to raise the production capacity by 700,000 sets of tyres per year. The target production capacity is 1.2 million sets of tyres using world-class advanced technology.

Investment: US\$102 million.  
Contact person: Kang Zhongxue.  
Tel: 0421-3622000.  
E-mail: yangshuxin68@eyou.com

## Technical reform project to produce 450,000 sets of truck diesel engines per year

Project description: Based on the current production capacity of 130,000 sets, to carry out a reform of the 102 series diesel engine, the QD32 (ZD30) series diesel engine, the D series diesel engine and foundry, and realize the goal of producing 250,000 sets in 2005 and 450,000 sets in 2010.

Investment: US\$167 million.  
Contact person: Geng Wenhao.  
Tel: 0421-2720587.  
Fax: 0421-2720131.

## Producing 300,000 sets of power wheel steering engine per year

Project description: Based on existing production and management, to invest for new equipment and civil construction to realize a production capacity of 300,000 sets of power wheel steering engine.

Investment: US\$9.4 million.  
Contact person: Che Tiejang.  
Tel: 1330 4219346.  
Fax: 0421-3907302.

## Reform of automobile technology of Dongfeng Chaoyang Siyi Co

Project description: This project is registered and built in the Chaoyang Economic and Technological Development Zone, which is near State Highway 101 with a complete transportation, communication, water, electricity and central heating facilities. It undertakes the work of assembling and refitting for light and heavy trucks. Target capacity: 20,000 trucks will be assembled and 5,000 trucks will be refitted.

Investment percentage: Subject to negotiation.  
Contact person: Li Xiang.  
Tel: 0421-2720050.  
Fax: 0421-2720929.

## Technological reform of 100,000 heavy truck chassis production line

Project description: Based on the existing production capacity of 40,000 sets of chassis, we plan to introduce an open crimping line, a hole-punching line, a painting and installation line, a plate-shearing machine, a cutting sets-of-machine, a cleaning machine and other equipment to form a new advanced production line with a capacity of 100,000 chassis per year.

Investment: US\$89 million (estimated).  
Contact person: Jiang Shifu.  
Tel: 0421-6953206.  
Fax: 0421-6952016.

## Producing 1,000 backhoe loaders per year

Project description: to develop, design and introduce backhoe loader production technology and increase advanced checking and testing equipment to realize a production goal of 1,000 backhoe loaders per year.

Investment: US\$10 million.  
Contact person: Zong Jie.  
Tel: 0421-3817940.  
Fax: 0421-3814602.

## Equipment production line to reform manufacturing capacity of clinker cement by dry method

Project description: The enterprise has the capacity of manufacturing completed sets of cement equipment to produce more than 30 tons by the dry method per day. We can contract to do the entire job of design, manufacture, installation, adjustment and service for your equipment. Upon completion, the manufacturing capacity of clinker cement by dry method production will be 800 tons/day. The output will increase by 35,000 tons, and a large workshop will be enlarged by 6,000 square metres. We are going to purchase a crane of 160 tons, a gear-hobbing machine of 12 metres, a vertical lathe of 12 metres, a large digitally controlled boring-mill lathe, a large trunk lathe and an automatic welding machine.

Investment: US\$18.73 million.  
Contact: Science and technology section.  
Tel: 0421-2816656.  
Fax: 0421-2816656.

## For more information, please contact information office of Chaoyang city.

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