

University up to speed with industry advances

By YUAN SHENGGAO

A tech-based university should closely follow the trends of social and economic growth and give equal priorities to education, research and the industrial application of technologies. That is demonstrated in the four-decade development history of a university in the eastern Shanxi city of Yangquan.

Yangquan used to be a city heavily relying on coal mining, which was also the highlight of curriculum design of Shanxi Institute of Technology based in the city in its early days.

When it was established in 1984, the university had coal mining as its sole major subject. Today it boasts 34 disciplines centering on and beyond coal mining.

The university's officials said its curriculum development in recent years corresponds to the development trend of Shanxi's energy industry.

The industry in Shanxi is now implementing an energy revolution campaign featuring upgrading the coal mining sector toward safer, cleaner and more efficient operations; diversifying the coal mining sector to multiple segments that include new materials and chemicals; and strengthening the development of new energy sources.

Responding to this new trend, Shanxi Institute of Technology began to change its philosophy governing curriculum design, which has become increasingly "problem-oriented" since 2014, according to Zhang Changqing, Party secretary of the university.

He explained that a problem-oriented philosophy means that a university should have the ability to identify and solve problems arising from evolving economic and industrial situations. And this ability can be acquired through research into the local economy and adjusting curriculum design to new situations.

"As Shanxi is upgrading and diversifying its coal industry, we have included such disciplines as mechanics, electrics, safety engi-

neering, new materials, automation and digital technologies in our curriculum plan over the past years, in addition to such traditional subjects as geological engineering, survey and mining," Zhang said.

The official said that close cooperation with industrial enterprises is a viable way to enhance a university's capabilities in research and education and helps to grow its abilities to identify and solve problems.

For instance, the university and local industrial giant Huayang Group jointly established a training center.

The center, simulating in-shaft coal mining scenarios, covers an area of 4,300 square meters and boasts 98 sets of equipment.

"With this center, our students can better master hands-on skills and be better positioned for their career development in the future," said Wang Kai, a university official responsible for students' skills training.

After finishing training at the center, students can have further opportunities to receive on-site training at Huayang's production sites, learning to operate various machines and equipment from Huayang's engineers and technicians.

"This is a win-win program," Wang said. "Huayang helps to train our students by giving them the opportunity to get familiar with the latest technologies and equipment, and we support Huayang through offering them well-educated graduates."

Shanxi Institute of Technology has also collaborated with local enterprises in establishing corporate doctorate work stations.

Lyu Lihua, a PhD researcher at the university's material sciences and engineering department, is now the head of a doctorate work station in Yingyu Ceramics in Pingding county.

Over the past two years, his team has developed a number of cutting-edge products for the company, helping it tap into new markets.

Jia Lijun contributed to this story.



Shanxi Institute of Technology students are taught at the joint training center founded by the university and Huayang Group. PROVIDED TO CHINA DAILY

Province presents food and arts to dignitaries

By YUAN SHENGGAO

When crab apple flowers were in full bloom in early April in the former residence of Soong Ching Ling (1893-1981) in Beijing, more than 100 foreign diplomats were invited there and treated to poetry, cultural performances and food from Shanxi province.

They were there to attend the Haitang Cultural Festival hosted by the China Soong Ching Ling Foundation and other organizations.



A foreign guest (second from left) inspects Shanxi produce at the Haitang Cultural Festival. GUO NING / FOR CHINA DAILY

Haitang is the Chinese name of crab apple. The tree blossoms constitute one of the most spectacular sights in Beijing every spring.

The CSCLF is a charity organization founded to memorialize the former honorary chairwoman of China who was also the wife of China's democratic forerunner, Sun Yat-sen.

In addition to recitations of poems about China and the world, and a variety of cultural performances, a banquet featuring food



The farms in Longxi township in Pingshun county are known as Dangshen Valley among industry insiders. WANG CHAO / FOR CHINA DAILY

County's quality herbs win State recognition



Pingshun, in Shanxi's Changzhi city, offers ideal conditions for medicinal plants

By YUAN SHENGGAO

Dangshen, the Chinese name of the popular medical herb of hairy asiabell, is something that can directly remind people of its geographical indication.

Shangdang is the ancient name of today's Changzhi city in North China's Shanxi province. *Dangshen*, which literally means ginseng from Shangdang, is so named because the best-quality variety is said to grow in the region.

In Changzhi, the county of Pingshun is an area with the best conditions for the herb's growth. The local variety is called *lu dangshen*, which is recognized by industry insiders as the best of the hairy asiabell produced in the city.

Pingshun's natural conditions are suitable for the growth of not only hairy asiabell, but another 300-plus medical herbs. Of these, two varieties, Pingshun *dangshen* and Pingshun forsythia, have been granted geographical indications by China National Intellectual Property Administration.

In addition to the farming of

herbs, Pingshun has a complete industry chain ranging from the research and development of crops, farming, traditional Chinese medicines manufacturing, marketing and TCM-related tourism.

For its achievements in the herb farming and TCM sectors, Pingshun was recognized as a provincial-level town with characteristic industries.

Shanxi released its first batch of 10 provincial-level characteristic towns in September 2022. Developing places with characteristic industries is a new strategy in Shanxi, which aims to create economic engines for local growth.

Industry insiders and officials in Pingshun have realized that the listing of the county as a provincial-level characteristic town is a great opportunity for the local herb farming and TCM industries' growth.

Encouraged by the new status and seeing the market potential, local entrepreneurs and officials have big plans and are acting to boost the industries' development.

In the township of Longxi, for instance, local farmers have developed a farming base totaling 666 hectares for growing *dangshen*.

"The farms in Longxi are known as Dangshen Valley among industry insiders," said Li Chenlin, head of the villagers' committee of Zongshang village. "The popularity comes from the top-quality crops we grow with organic solutions."

Zongshang is a part of the Longxi farming base, with 53 hectares of land dedicated to growing *dangshen*.

"Last year we had a bumper harvest of *dangshen*, with a per-hectare output of more than 2.6 metric

tons," Li said. "This generated a total revenue of nearly 9 million yuan (\$1.31 million) for our villagers."

The official is expecting a higher output and revenue as the village plans to increase operational scale and upgrade planting techniques.

The county government of Pingshun recently released a series of plans for the medical herb industry chain's growth. They include expanding the county's medical herb planting area to more than 30,000 hectares and developing a modern industrial park for medical herb farming and TCM production.

An important part of the medical herb and TCM industrial park, the Shangdang TCM Incubation Center has started operation. This is a government-supported establishment aimed at offering assistance to entrepreneurship in the medical herb industry chain, according to Wang Jinjin, head of the center.

"We have set aside a fund worth 230 million yuan to support the development of the industry chain," Wang said. "With this fund, subsidies will be given to medical herb growers and TCM manufacturers."

In addition, the county's financial bureau is cooperating with local banks to establish an alliance for financing medical herb and TCM businesses. The alliance now has 500 million yuan worth of credit lines in place for local borrowers.

The county is also developing a comprehensive talent pool to support the industries' development. While planning to build five doctorate work stations to attract top agricultural experts from across the county, the county is making efforts

to enhance its local force of technological professionals. The plan is to train more than 1,000 agronomists, technicians and management personnel in the years to come.

With the support of technological professionals, Pingshun's medical herb and TCM sectors have seen increasing strength in innovation, especially in the fields of seedling cultivation, farming modernization, and medicine R&D and manufacturing, as well as e-commerce sales.

Based on its rich reserves of wild herb species, Pingshun has established a number of seedling cultivation research facilities for medical herbs like *dangshen* and forsythia.

The county is also home to several farming machine builders who have developed machines and tools tailored to local herb farming.

"The machines make modernized and standardized herb farming possible in Pingshun," said Wang Teng, head of the county's bureau of agriculture and rural affairs.

Duan Yanfei, vice-mayor of Pingshun, said one of the county's focuses is to foster an extended industry chain for medical herbs and TCM.

"An extended industry chain, featuring R&D, farming, manufacturing, logistics, trade, e-commerce, intermediary services and skill training, as well as integration with tourism, will bring a multiplier effect to local industries," Duan said.

Pingshun is developing itself into a major sightseeing, relaxation and recreation destination in the southeast of Shanxi based on its rich herb and TCM resources.

The county received about 1.18 million visits in 2022 and garnered tourist revenue of more than 700 million yuan, according to Duan.

Lian Shubin, Party secretary of Pingshun, said the medical herb industry chain is expected to become a huge cluster with a scale surpassing 10 billion yuan in the future, becoming an indisputable economic pillar of the county.

Li Jiaming contributed to this story.

Ancient handicraft gets new lease on life

By YUAN SHENGGAO

Zhen Shisheng, a resident in the eastern Shanxi city of Yangquan, is a man with hearing loss and speech difficulties.

He began to suffer from hearing loss after a medication error when he was 3 years old, followed by speech difficulties in the following years.

Despite his physical difficulties, Zhen has lived a meaningful life, thanks to his interest and talent in and enthusiasm for the traditional Shanxi art of *fahua* ware.

Fahua ware, which is mostly made in the south and east of Shanxi, is the porcelain version of cloisonne, where the design elements are separated by copper wires. Porcelain featuring these techniques is fired at lower temperatures with the different colored glazes and enamels applied to individual areas created by the slip lines.

When recalling his experience to learn the techniques to make this Shanxi handicraft with a history of hundreds of years, he said it was his difficulties in hearing and speech that made him concentrate on something he loves.

"When you lose some abilities, you would cherish all the others left to you," Zhen said in sign language. "Success is possible when you apply all your senses and abilities to your subject of work."

Zhen learned the craft from his father, who is a master *fahua* ware



Zhen Shisheng applies enamel to a piece of *fahua* ware at his studio in Yangquan. LI LIAN / FOR CHINA DAILY

craftsman in a porcelain factory in Yangquan.

He said the hardest part of learning to make *fahua* ware is that the *fahua* techniques have been lost for about 300 years, and today's revival of the art has been made through artists' painstaking research into ancient documents and existing museum exhibits, as well as their own imagination.

"But it has proven to be a blessing in disguise," Zhen said. "Despite the ancient documents and exhibits used as a frame of reference, this is almost a brand-new art form for today's craftsmen," Zhen said. "This means you can fully embrace your creativity."

Zhen's creativity and innovation in this art are demonstrated in the freedom of using lines and glaze

colors, as well as the selection of patterns and images for decoration.

For instance, one of his award-winning works features the figures of *A Dream of Red Mansions*, one of the four great Chinese classical novels. This piece of work is also different from the antiques with its smoother lines and brighter colors.

Zhen opened a *fahua* training studio in a middle school in the suburbs of Yangquan, which has trained more than 500 students over the past few years.

"I'm happy to see a growing enthusiasm among the young people," Zhen said. "I believe this cultural heritage can be passed down to generations in the future."

Li Lian contributed to this story.