



INNOVATION

Yunnan perennial rice provides strong overwintering ability, stable yield and good taste

A crop you plant once and harvest for four or five years

BY YANG ZHIGAO

At the Yunnan Provincial-level Major Scientific and Technological Achievements Conference (Rice Science and Technology Session) held in Kunming recently, it was announced that Yunnan researchers have bred a perennial rice that farmers can plant once and harvest for several years on end.

Accordingly, the world's cultivated rice species include Asian and African cultivated rices. However, due to the interspecific hybrid sterility gene, varietal hybridization and gene exchange used to be impossible between Asian and African varieties. This restricts the cultivation of high-quality rice varieties. Later, researchers successfully cloned the interspecific hybrid sterility gene and bridged interspecific gene exchanges.

"A rice variety you plant once and harvest for several years on end" sounds like a dream but has become a reality through researches made by Tao Dayun at the Yunnan Academy of Agricultural Sciences and Hu Fengyi at the School of Agriculture of Yunnan University.

The two researchers started their work from the long stamen wild rice originated in West Af-

- **Characteristics:** Strongly perennial, good overwintering ability, and stable yield.
- **Yield per acre:** 74.17 kilograms for early rice and 74.28 kilograms for late rice in last year's trial planting.
- **Taste:** The perennial rice tastes the same as normal rice when cooked, though the quality also varies.
- **Harvesting method:** Cut off the superterranean part and leave the subterranean stem; no tillage is needed. The next year, new rice plants will grow from out of the subterranean stem and can be harvested again. Plant the perennial rice once and it can be harvested four or five years.

rica. As a perennial herbaceous plant, long stamen wild rice has a well developed subterranean stem and strong resistance to pests and diseases.

With the embryo rescue technique, Tao Dayun and Hu Fengyi obtained the F1 hybrid generation

of RD23 and long stamen wild rice and bred many progeny populations. In addition, based on the perennial characteristics of long stamen wild rice, they bred a series of perennial varieties. These perennial rice varieties can overwinter while most ratoon rice varieties cannot.

"Twenty years ago, I thought of converting rice from an annual crop into a perennial one, just like fruit trees," said Hu Fengyi. So far, the perennial rice cultivated by Hu Fengyi and his colleagues has been planted on 825 acres of land. Some varieties are so strongly perennial that you can plant them once and harvest them for four or five years; they have good overwintering ability and produce stable yield. Last year, the yields per acre of early rice and late rice were 74.17 kilograms and 74.28 kilograms, respectively.

According to Hu Fengyi, this perennial rice can be harvested twice a year in places such as Xishuangbanna Dai Autonomous Prefecture where double-cropping rice is planted and once a year in places where single cropping rice is planted. This year the perennial rice will be planted in Kunming, Yuxi and other places in Yunnan Province to see whether it is suitable for these places.

TRAVEL

Yunnan to open first cliffside glass walkway



Photo by Qin Menglin

BY QIN MENG LIN

In the Shimenguan scenic area on the western slope of Cangshan Mountain in Yangbi County of Dali Bai Autonomous Prefecture, a 1,550-metre-long and 170-metre-high tourist walkway is going into

trial operation. It includes a breath-taking cliffside glass section that extends for 80 metres. The walkway was developed by Cangshan Shimenguan Tourism Development Company.

According to Ji Xiaodong, chairman of Cangshan Shimen-

guan Tourism Development Company, the cliffside glass walkway is the first of its kind in Yunnan and is longer than the glass walkway in Zhangjiajie National Forest Park by 20 metres. The glass for the two walkways was produced by the same manufacturer. The walkway also provides a glass viewing platform that stretches out from the cliff wall for seven metres, where tourists can get a bird's view of the cliffs, waterfalls and pools.

Following the opening of the cliffside glass walkway, the five-star Shimenguan Hotel, the Old Village Head Inn and the Bai Ethnic Dwellings Hotel will go into trial operation. In addition, an outdoor spa establishment will be completed in the near future.

CLIMATE



Feeding seagulls in the snow

From January 23 to 25, a cold wave hits Yunnan Province. Snow falls in most part of the province. Beside the Dianchi Lake in Kunming, capital of Yunnan, a child is feeding black-headed seagulls in the snow.

Photo by Gu Bin

ECO

Wild cormorants come back to Dianchi Lake after 30 years

BY LI CHAO

Wild cormorants have been seen recently again in the Dianchi Lake after an absence of more than 30 years, the Kunming Municipal Dianchi Lake Administration Bureau disclosed at a recent press briefing.

Dianchi Lake is the largest of its kind on the Yunnan-Guizhou Plateau. It has been listed by Birdlife International as an important bird area in Asia because of its abundant bird resources. Over the past five decades, according to Zhao Xuebing, Secretary-General of the Kunming Bird Watching Association, a large number of ponds and wetlands in the

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“With the ecological construction around the Dianchi Lake, the lake ecosystem is improving and the biodiversity is restored to a certain extent”

Wang Lihua

Deputy director of Kunming Municipal Dianchi Lake Administration Bureau

Dianchi Lake drainage basin disappeared, depriving many waterfowl of

their natural habitats.

A few days ago, a local photography enthusiast surnamed Wang was taking photos beside Dianchi Lake when he spotted three large dark-feathered birds with long pointed beaks. At the press briefing, the Kunming Municipal Dianchi Lake Administration Bureau confirmed that the three large birds were wild cormorants, which have been absent from Dianchi Lake for three decades. There are a very small number of wild cormorants in China at present. In 2013, the International Union for Conservation of Nature (IUCN) includes the wild cormorant on the Red List

of Threatened Species.

"With the ecological construction around Dianchi Lake, the lake ecosystem is improving and the biodiversity has been restored to a certain extent," said Wang Lihua, deputy director of the Kunming Municipal Dianchi Lake Administration Bureau. In recent years, the improving ecological environment around the Dianchi Lake has attracted significantly more birds to live or winter there. Of the 140 species of birds observed in this area, many are newly recorded in Yunnan, and the Anastomus oscitans observed here in 2013 even marked a new record in China.

CULTURE

3,000 people attended copper pots long street banquet together



Photo by Jiang Tiancan

BY JIANG TIANCAN

At the First Aya Copper Pots Long Street Banquet Culinary

Culture Festival in Bazhai Township, Maguan county, Yunnan Province, more than 3,000 local people and tourists attended.

Bazhai Township, known as Aya in ancient times, boasts profound history and culture and is home to many intangible cultural heritages. These include Yunnan opera, flower-drum performances, puppetry, dragon dances, festive lanterns and ancient Aya music. Among these, ancient Aya music has a history of more than 600 years, and its repertoire includes *Ode to Aya*, *Happy Immortals*, *One Hundred Blessings* and a score of other pieces. After years of development, Bazhai Township has become a "business-oriented feature township of Yunnan."

At five o'clock in the afternoon, the Aya copper pots long street banquet pushed the festive atmosphere to a climax. The two main streets of Bazhai Town were lined with tables, on which copper pots were laid. A total of more than 3,000 local people and tourists joined in the event. All foods were prepared with local ingredients and featured local flavours, a chef said.

COOPERATION

Thai Pavilion project to open in Kunming

BY ZHAO GANG

The Thai Pavilion Group and the Haohong Industrial Park have jointly built a large Thai goods trade zone in Kunming, capital of Yunnan Province, where Chinese consumers will be able to buy products from more than 2,000 Thai companies.

The Thai Pavilion Group is a large Bangkok-based company mainly engaged in the import and export of Thai products. The Thai Pavilion project of Kunming will be opened before the Chinese Spring Festival. The project is designed to bring Thai products, services and culture into Yunnan market and open a new model of cooperation for Yunnan-Thailand trade.

In addition, the Thai Pavilion will build an e-business platform for selling Thai goods in Yunnan.

FOREIGNERS IN YUNNAN

BY HE QIAN

"I came to Lijiang just for work. I did not expect that I would harvest so much friendship here and eventually become a new Lijiangner," Indonesian girl Huang Lingling said with a smile.

After graduating from university, Huang Lingling obtained an internship with Banyan Tree Holdings, Indonesia. She soon earned herself

a job at Banyan Tree Lijiang in northwest Yunnan with her excellent performance and Chinese communication skills. In March 2006, Huang Lingling came alone to Lijiang. Upon arrival at the airport, she was disappointed. It was a small airport surrounded by clay houses and farmland, and Lijiangers spoke loudly... The city struck her as a backward village instead of the international

tourist city that her superintendent had described.

She asked the driver as soon as she got in the car, "Does Lijiang have anything else other than clay houses and farmland?" The driver smiled and said nothing. She told herself secretly, "Lijiang is just a place to work. I can't choose my place of work, but I will apply to leave here in a few years."

However, after spending a period

of time in Lijiang, Huang Lingling gradually changed her view of the city. She visited the Old Town of Lijiang, the Yulong Snow Mountain, the Dongba Valley and other places. The mysterious Dongba culture is so unique and attractive. And Huang was impressed with the sincerity and enthusiasm of the Naxi people.

"Lijiangers often invite you into their homes. The more visitors, the

happier they will be," said Huang Lingling. "Every time you visit a Naxi household, you will be treated to the best food."

"The mere thought of Lijiangers' hospitality and kindness often makes me want to cry," said Huang Lingling. Last June, she was six months pregnant and her mother came from Indonesia to take care of her. The visa process required a proof

of her relationship with mother, but Huang Lingling could only produce a non-marital status certificate that she had used to apply for her marriage certificate. The required proof could only be secured in Beijing or Indonesia. Huang Lingling was desperate, thinking that she might have to buy an air ticket and send her mother home. To her great relief, the Lijiang Public Security Bureau told her the

next day that given the special circumstances, they would issue a visa for her mother.

"I was happy and surprised at the news. In the past few years of living in Lijiang, my friends took care of me when I was sick and my colleagues helped me when I was in difficulties. Bit by bit I have grown emotionally attached to Lijiang," said Huang Lingling.