

# WORLD FEATURE

*A monthly features service on scientific, technical, and educational subjects pertinent to development.*

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## CHINA EXPANDS ITS BEEKEEPING

by BIAN JI

CHINA FEATURES

Travelling through the Chinese countryside in Spring, one frequently comes across clusters of white-washed beehives glittering in the bright sunshine, and, nearby, swarms of bees humming blithely amid the flowers and shrubs.

Beekeeping is thriving both as a profitable sideline for peasant farmers and as an important means of increasing crop yields everywhere in rural China, from Kwangtung in the tropical south, to Heilongjiang in the cold north. Honeybees are even found on the Tibet plateau - the "roof of the world" - where apiculture was virtually unknown before the founding of new China.

By the end of 1978, colonies of domesticated bees totalled more than four million in China - eight times the figure of 1949 when the People's Republic was established. Last year the state purchased 20 times as much honey as in 1949, and China now ranks third in the world in the number of bee colonies, behind the Soviet Union and the United States.

Beekeeping dates back more than 2000 years in China. There are abundant plant sources of nectar and Chinese honey is well-known abroad for its high quality, wide variety, and high nutritive content. Especially popular on the international market are the linden-tree honey gathered from the virgin forests on the Daxingan and Xiaoxingan mountains in Heilongjiang province, and the lichee honey and longan honey from fruit-growing centres in Kuantung and Fujian.

Working in close cooperation with local research organizations and experienced peasant beekeepers, the Bee Culture Research Institute - set up by the Chinese Academy of Agricultural Sciences in 1958 - has formed a nationwide research network. The institute established its first research centre at Guyan Prefecture in Ningxia Hui Autonomous Region. Under the guidance of the researchers, more than 200 state-run and communally-owned apiaries achieved a high average honey yield of 70.15 kilogrammes per colony in 1978. The results of their experience are now being disseminated throughout the country.

Through long years of selection and propagation, Chinese scientists have cultivated good strains of bees, suitable to the varied natural conditions either in south China or in the north. The Chinese breeds fly fast, possess strong nectar-gathering power, have a keen sense of smell, and are resistant to extreme cold, heat, and diseases. Their shortcomings - they are small in size and colonies are subject to division by swarming - have been steadily eradicated through selective breeding, the raising of fine queens, the use of movable frames in hives, and other scientific methods.

In recent years, China has introduced Italian, American, and other Western strains of bees that have performed satisfactorily after a period of acclimatization and breeding. Cross-bred strains of bees, obtained by crossing a prolific and cold-resistant breed of black drones native to northeast China, with Italian queens, have shown great vitality and increased egg-producing and honey-gathering ability. Breeding centres have been set up in quite a number of places to propagate hybrids, and artificial insemination of bees has been introduced.

The Bee Culture Research Institute has developed a type of fumigant composed of 20 percent phenothiazine, 25 percent potassium nitrate and 55 percent sawdust for the elimination of the mite *Varroa jacobsoni oudemans*, an insect harmful to worker bees. Efficient use of insecticides, combined with better management

of the colonies, have helped bring insect pests under control.

China has paid increasing attention to the effect of pollination by honeybees of various crops and fruits. Experiments conducted by Chinese scientists in Zhejiang and over wide areas of the country show that bee pollination has brought increases of more than 37 percent in the yield of rapeseed and 10 percent in its oil pressing rate, over 10 percent in the yield of cotton, and 30 percent in both the yield and milling rate of buckwheat. Pollinated by bees, apple, pear, peach, lichee, and orange trees have given high yields of fruit over a long period.

Honey, bees' wax, royal jelly, bee venom, and other bee products are widely used for medicinal, industrial, food processing, and other purposes in China. Fang Zhu, Vice-Chairman of the preparatory committee for the Chinese beekeeping society set up last September, says that experience in China has proven that honey has certain curative effects on liver, kidney, heart, lung, and stomach diseases, anemia, and neurasthenia. "Bees are good friends of human health and each colony is like a small pharmaceutical factory," he said.

To speed up apicultural development, beekeeping centres have been established in Sichuan, Ningxia, Shaansi, Kanus, Kuantung, Hubei and other provinces this year, bringing a further growth in apiculture in China.

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