



Left: Hornets' nests are moved into covered quarters for protection during winter. Below: A nest is placed in a cotton field in Dengqiao Village.

PHOTOS: China Features



IRDC FEATURE

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

Words: 542

HORNETS -- FRIENDS OF CHINESE PEASANTS

by TIAN SANG

CHINA FEATURES

Most people dislike hornets because of their terrible stings. Chinese peasants, on the other hand, "make friends" with hornets and use them to protect crops against harmful insects.

One would be reproached for killing a hornet in Dengqiao Village, Shangqiu county, central China. When pupils there find a hornets' nest on their way home after school, they pluck it off, carefully cover it with clothes, and take it to the insect pest control station of their production brigade.

Most of the cotton fields at Dengqiao are protected by hornets that destroy about 80 percent of the insect pests. In a cotton field there, the writer of this article saw how hornets dealt with bollworms. At the first glimpse of a bollworm, a hornet held its prey firmly with its six slender legs and stung it at the back here and there. The bollworm was soon reduced to pulp and devoured.

Hornets have also been seen ferreting out the worms from the bolls with their sharp teeth and legs.

Observations made in the hornet-raising shed at Dengqiao's biological control station show that a hornet eats 6-7 large bollworms or 20-30 small ones each day -- 4000 to 5500 worms in its lifetime. Hornets also destroy many

other insects, including corn and millet borers, pod borers, bean hawk moths, peach borers, pink bollworms, cabbage caterpillars and armyworms.

The costs involved in using hornets to control pests are very low. In Dengqiao Village, for example, a very small sum (about 15 yuan or \$10 U.S. per hectare) is expended every year on the wood and wire-netting used for making cages to protect the hornets from birds, lizards, and rainstorms.

Asked how hornets were obtained for the cotton fields, 30-year-old Deng Shenzhong in charge of the local biological pest control station said: "We collect hornets' nests under eaves and on branches." Nest-collecting groups, each consisting of three members, go out to spot the nests by day and gather them at night when the hornets have returned to their nests. A man climbs up the tree on which a nest has been found. By the subdued light of an electric torch held by another man under the tree, he cuts off the branch and lowers it on a rope to the nest carrier. All this is done gently that the hornets are not disturbed and remain in the nest.

"Care should be taken not to disturb the hornets with direct flashlight glare, otherwise the insects will swoop down on the man holding the torch," Deng warned. "You needn't worry if you get stung. Crushed onion or garlic and toothpaste, or gasoline will relieve the pain."

While it is still dark the hornets' nests are tied under tiny thatched, umbrella-shaped shelters placed on sticks in cotton fields, and at daybreak, the hornets will start making war on harmful insects. Hornets always operate within a radius of 250 metres from their nest.

Generally speaking, 3000 hornets suffice for keeping insect pests under control on a hectare of cotton.

Hornets are now employed for pest eradication in some localities in seven Chinese provinces. The difficulty in getting large numbers of hornets prevents their use on extensive scale. Research is being conducted to breed them in captivity.

END