

Thai Sac Brood Virus Situation in Thailand

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Part 3

Recent Findings in Bee Diseases and Pest Control

Sac Brood Virus Disease (TSBVD) was first reported in *Apis cerana* collected from Doi Pui, Mae Hong Son province, Thailand, in 1970 (Arreekul 1979). It was confined to *A. cerana* colonies at that time; there were a few *A. mellifera* colonies in the same apiary. TSBV was isolated from *A. cerana* larvae from Thailand and characterized as different from sac brood viruses affecting other bees by Bailey *et al.* (1982). The present situation in Thailand is reported here based on data from the Entomology and Zoology Department, Department of Agriculture, Bangkok, and observations of apiaries in central Thailand.

Biological and Pathological Studies of TSBV

Arreekul (1984) reported that TSBV is spherical with diameter of 29 μ m. A spherical in-

clusion from the rest of the cytoplasm. The arrangement of virus particles are classified into five categories: short banded body ring-like arrangement; long curved lines of virus particles arranged predominately in two rows; regular arrangement of packed virus particles; irregular lattice arrangement of packed virus particles; and particles distributed singly at random.

Situation of TSBVD in Thailand

In 1976, TSBVD was found among colonies of *A. cerana* in mountainous areas of northern Thailand. There was no report of disease in the south of Thailand at that time. In 1990, there was an outbreak of TSBVD in Chumphon province in the south of Thailand (Jarungjit *et al.*, 1993). Beekeepers lost about 90 per cent of their colonies. Reprintations confirmed symptoms of TSBVD in Nakhonratchasirima province but