

Impacts of horticultural mineral oils and two insecticide practices on population fluctuation of *Diaphorina citri* and spread of huanglongbing in a citrus orchard in Sarawak.

ABSTRACT

Aspects of the incidence and spread of the citrus disease huanglongbing (HLB) in relation to the vector *Diaphorina citri* population fluctuation were studied from January 1999 to December 2001 seasons in a 0.8ha citrus orchard at Jemukan (1°33'N, 110°41'E), Southwest Sarawak in Malaysia. In relation to insecticide and horticultural mineral oils (HMOs) use, levels of HLB infection rose quite rapidly over the next 3 years in the unsprayed control and less rapidly in the other treatments such as imidacloprid, nC24HMO, and triazophos/cypermethrin/chlorpyrifos. Levels of HLB as determined by Polymerase Chain Reaction (PCR) were 42.2, 9.4, 11.4, and 22.7, respectively. The effects of nC24HMO and conventional pesticides on the citrus psyllid population and parasitoids in citrus orchard were also determined.

Keyword: Huanglongbing; Citrus orchard; *Diaphorina citri*; Horticultural mineral oils; Conventional pesticides.