

Identification of physical and biochemical characteristic of mandarin (*Citrus reticulata*) fruit infected by Huanglongbing (HLB).

ABSTRACT

This study was conducted on an infected 8 year old *Citrus reticulata* orchard in Terengganu, Malaysia. Huanglongbing (HLB) was successfully detected using conventional PCR in samples with blotchy mottling and midrib yellowing symptoms. Different treatments of antibiotic (Oxi-tetracycline), GA3 and foliar fertilizer were tested on the HLB-infected citrus plants. The chemical treatments were applied before flowering (February 2008) and during fruit set (June 2008). Changes in fruit quantity and quality parameters of *Citrus reticulata* were studied after harvesting. Low titratable acidity (TA) was measured on T7, T6 and a high rate of TA was achieved on T8 as control. High SSC percentage was recorded in T7 followed by T2 and T8. A high peel thickness percentage, fruit weight, was recorded on T7 and T2 while low values were observed on T8 and T5. High juice percentage was recorded on T2 followed by T7 and low juice percentage was recorded on control (T8). High pulp percentage was observed on T2 followed by T7 and a low rate was measured on T8. Finally, the best treatments were T7 and T4 to increase the HLB-infected fruit quantity and quality.

Keyword: *Citrus reticulata*; Chemical treatments; HLB-infected fruit.