

Doença greening em citrus: plataformas de diagnósticos

Citrus Greening disease: platforms of diagnosis

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Abstract:

The citrus disease Huanglongbing (HLB) also known as greening is caused by *Candidatus Liberibacter asiaticus*, *Ca. L. africanus* and *Ca. L. americanus* but only *asiaticus* is globally distributed. It was first reported in China (1919) then Thailand (1960), Brazil (2004), Florida (2005) and it is spread also in Africa and India. The *Ca. Liberibacter* spp. are transmitted by the insect psyllid (*Diaphorina citri* and *Trioza erytreae*) into the phloem and attack the vascular system reducing the transport of water and nutrients. The characteristic symptoms (leaf yellowing, green misshaped fruit, off-season blooming) takes for up to 1 year and no method for curing HLB is available.

Chemical and biological control of the vector and identification of the disease are on investigation around the world. Our group is researching methodologies based on affinity interaction to identify the greening disease associated agent. Antibody anti surface protein OMP was commercially developed and different format of ELISA were applied for both the protein and citrus leaf extract. Biosensor based on magnetic particles will be also discussed.

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