

tion. The weighted index of conformity with the NTEPIC reached 69%, while the weighted recommended adoption of HLB control practices reached 58%. Recommendations of actions to mitigate environmental impacts and optimize management practices for HLB control have been proposed, based on these estimates, as guides for improved technical action by the consultants and assisted farmers.

Financial support: Embrapa.

Keywords: impact assessment; HLB control; best management practices.

S6-255

SURVEY FOR PHYTOPLASMAS AND *Candidatus Liberibacter* FROM HLB-SYMPTOMATIC CITRUS PLANTS IN BRAZIL

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The Huanglongbing (HLB) is the most important citrus disease in the world. In Brazil, phytoplasmas from 16SrIX group were associated with symptomatic-HLB citrus plants in both States of São Paulo and Bahia in *Ca. Liberibacter*-free plants. This work had the objective to investigate the presence of phytoplasmas in HLB-symptomatic citrus plants in other regions of Brazil to monitor the spread of these phytoplasmas and their association with *Ca. Liberibacter*. Leaves of sweet orange, lemon and mandarin from commercial citrus orchards in the States of RS (Southern region), MG (southeastern region), DF (midwestern region) and BA (northeastern region) with typical HLB-symptoms were collected and submitted to diagnosis. The PCR or qPCR with specific primers for *Ca. Liberibacter asiaticus/ americanus* and 16SrIX phytoplasma were used. No phytoplasmas were detected in 102 samples collected from 130 citrus orchards. The *Ca. Liberibacter asiaticus* was detected in MG in the regions of Bonfim, Campanha and Perdões. There was no detection of *Ca. Liberibacter* in RS, DF and BA, currently HLB-free areas. The survey will continue in order to elucidate the importance of phytoplasmas in HLB-symptomatic citrus plants.

Financial support: Embrapa.

Keywords: 16SrIX-Phytoplasma; *Ca. Liberibacter*; Huanglongbing.

S6-256

PROGRAM FOR MONITORING *Diaphorina citri* KUWAYAMA (HEMIPTERA: LIVIIDAE) IN TUCUMÁN, ARGENTINA: JOINT WORK BY PUBLIC AND PRIVATE ENTITIES

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Diaphorina citri is one of the vectors of the bacterium which causes Huanglongbing. Although this insect is widely distributed in the country, it is not present in Tucumán (the world's major lemon producer). The need to keep this province free of *D. citri* encouraged citrus producers and public organisms to join efforts to enhance its monitoring and early detection, which is precisely the aim of this work. With the coordination and cooperation of EEAOC and AFINOA, the staff members of seven citrus companies were trained to recognize the insect and 2,859 colored sticky traps were set up across 120 farms, covering a 21,410 ha area (54% of Tucumán's citrus producing area). These were periodically checked on a fortnightly basis from September to March and monthly from April to August and the data were uploaded to the online platform that issues the corresponding reports. Moreover, this monitoring was periodically audited. From December 2013 (when the program started) up to the present (May 2016), 97,055 traps have been checked without finding evidence of *D. citri* presence in the province.

Keywords: *Diaphorina citri*; monitoring; sticky traps.

S6-257

SPATIO-TEMPORAL PROGRESS OF HUANGLONGBING AND THE IMPORTANCE OF NON-COMMERCIAL PLANTS AS SURCES OF PRIMARY INOCULUM

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The management of Huanglongbing is a very difficult task and efforts are necessary to prevent new infections. In the present work, we analyze six sweet orange farms located in São Paulo state where there were adopted frequent inspections to eradicate HLB-affected plants (≥ 4 times/year) and insecticide sprays for psyllid control (15 to 30 days interval). The incidence of HLB-affected plants lost in these farms (up to March 2016) was from 3.0% to 22.8%. The smaller incidences occurred in the two farms where plantations started in 2010 or after and the highest incidences were in farms that started the HLB-management practices only in 2012, years after the first HLB symptoms appeared. The logistic and Gompertz models presented good adjustments to the proportion of HLB-affected plants through years and their rates of disease progress were 0.25 to 0.98 (logistic) and 0.09 to 0.24 (Gompertz). Detection of *Diaphorina citri* was much more effective by yellow sticky cards than inspections of stems. The highest incidences of HLB-plants and psyllid