Sustainable control of the HLB vector insect in family citrus farming

Scale up integrated pest management with focus on the HLB vector in family citrus farming

The implemented initiative

Since 2019, it has been proposed to adapt and disseminate IPM technology in HLB vector control in FA, through a collective innovation management approach based on demonstration lots, training and communication, enhance social awareness, sustainability and fruit quality monitoring, economic analysis among lots. Funded by FONTAGRO, INTA /

Fundación ArgenINtA (Argentina), INIA (Uruguay), UNI / FundUNI (Paraguay), Municipal Autonomous Government of Bermejo (Bolivia) take active part in the project. SENASA and FEDERCITRUS (Argentina) and UPEFRUY (Uruguay) act as Associated Organizations in project implementation. Team: 102 researchers, extension agents and communicators.

The technological solution

Local adaptation of integrated pest management (IPM) technology in demonstration lots (DL) located in FA units, chosen in a participatory way with local actors, with focus on controlling the HLB (Diaphorina citri) vector, through monitoring practices, use of safe products that preserve the natural balance and use of natural enemies (Tamarixia radiata, crispidae). Monitoring allows activating an alert system hosted in a free access web portal, smartphone friendly, developed for FA and other actors. Training: certified IPM monitors, producer families, professionals and operators. Social awareness enhancement through dissertation in communities. Robust Communication strategy. Impact monitoring of the implementation of the IPM in lots: sustainability (AMBITEC-AGRO), effects on fruit quality (MEF, others) and economic-financial analysis. Collective innovation management is promoted as an approach to IPM scale up.

Results

17 demonstration lots (DL) with integrated pest and disease management (IPM) strategies; 17 conventional lots (CL) in family establishments.
- 640 monitoring of pests and diseases carried out in DL and CL.
- 3 agreed protocols: Selection of DL in FA; pest monitoring; field notebooks.
- 2 Biological control in Fontagro lots: Release of Tamarixia radiata at Bella Vista, Corrientes, Argentina and Salto, Uruguay.
- 1000 trained in vector identification, disease symptoms and other pests and diseases.
- 1 Virtual course for monitors (98 certificates).
- Early Alert system through smartphones linked to the BioTic INTA - Fontagro HLB portal.
- HLB field guide and insect vector for family citrus growers (in edition).