Letter to Editor

First report of *Tobacco Yellow Crinkle virus infecting* the soybean crop in Cuba

Primer informe de *Tobacco Yellow Crinkle virus* infectando el cultivo de la soya en Cuba

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Dear editor:

The presence of begomoviruses in the soybean (*Glycine max* L.) crops is reported worldwide. Its members infect only dicotyledonous plants and are transmitted by the whitefly (*Bemisia tabaci* Gen).

In Cuba, the begomoviruses emerged as one of the main pathogens that limit the solanaceous and bean crop productions. In 2014, their presence was reported in plants with interveinal chlorosis, stunting and mosaic leaf symptoms in soybean plants from Las Tunas province. In 2016, the *Rhynchosia golden mosaic Yucatan virus* (RhGMYuV) (EU021216) was first identified in commercial soybean plants showing mosaic symptoms in Mayabeque. However, it is unknown the begomovirus associated with the infection in symptomatic plant in the eastern region of Cuba.

In surveys to soybean crops in the eastern region of Cuba, 545 leaf samples were collected from plants showing begomovirus-like symptoms (mosaic, blistering, greening of the blisters, wrinkling, leaf yellowing, dwarfing, floral abortion and size reduction of young leaves). Conventional PCR using universal primers, rolling circle amplification, and restriction fragment length polymorphism analyses showed the presence of begomoviruses in 215 samples. Sequences of DNA-A were obtained from eighteen clones that showed very high identity among themselves (99 %). The full-length sequence of the DNA-A component (KU562964) of a clone comprising 2601 nucleotides, deposited in the GenBank database, showed the highest nucleotide sequence identity (99 %) with *Tobacco yellow crinkle virus* (TbYCV) (FJ213931) and *Tobacco yellow crinkle virus*-[Capsicum:Cuba:2007] (FJ222587), detected in tobacco (*Nicotiana tabacum* L.) and pepper (*Capsicum annuum* L.) plants in Cuba. Other begomoviruses infecting the soybean crop have been reported, such as *Rhynchosia golden mosaic virus* in Mexico, *Bean golden mosaic virus, Sida micrantha mosaic virus, Okra mottle virus*, and *Soybean chlorotic spot virus* in Brazil. To our knowledge, this is the first molecular evidence of the presence of *Tobacco yellow crinkle virus* affecting the soybean crop in Cuba. Taking into account the emergence of begomoviruses in economical crops in Cuba, these results suggest the need for an epidemiological study of the infections caused by these viruses in soybean in Cuba.

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The authors of this work declare no conflict of interest.