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A new threat for Cuban agriculture: phytoplasma diseases and their vectors

Una nueva amenaza para la agricultura cubana: enfermedades causadas por fitoplasmas y sus vectores

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Our country is located in the subtropical region with a high agricultural potential. Actually, agriculture supports mostly field crops such as corn, common bean, soybean, varied fruits and vegetable, whose productions may replace imports with a large impact on Cuban economy. Plant diseases are one of the most important factors which limit production of these crops. Recently, phytoplasmas have been found as important agents of diseases limiting the agricultural production in Cuba. Transmission by vegetative plant material and by vectors may cause epidemics in a very short period. The nested PCR and RFLP method has permitted the detection and characterization of *Candidatus Phytoplasma asteris* (Aster yellowgroup, AY) on sugar cane, papaya, pepper, radish, common bean, corn, soybean, tomato and macadamia trees, and *Ca. Phytoplasma aurantifolia* on papaya and sapodilla trees, as the most important phytoplasma infections in our country. In addition, this pathogen has been found in alternative hosts, mainly weeds surrounding these crops. AY and *Ca. Phytoplasma aurantifolia* are transmitted by vector species belonging to the order Hemiptera, mainly by species of the families Cicadellidae and Psyllidae. Future studies will be focused on disease epidemiology in agricultural ecosystems.