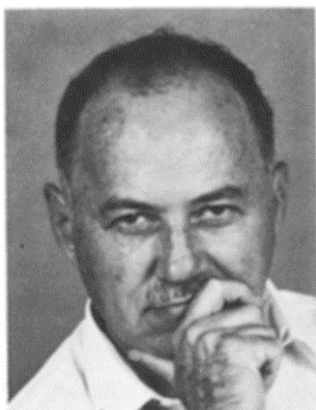


GUEST EDITORIAL



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LIMITATIONS IN THE EFFECTIVE DIAGNOSIS OF VIRUSES, VIROIDS AND SPIROPLASMA INFECTING CITRUS AND AVOCADO TREES

Plant diseases caused by viruses, viroids and spiroplasmas are still practically incurable once they have infected field-grown plants. This serious disadvantage necessitated the implementation of various preventive strategies to reduce the damage caused by such diseases. Among the most effective measures were the development of resistant varieties and of phytosanitation programs that provided disease-free planting material. Breeding of disease-resistant fruit trees is a long and often complicated process due to many genetic and commercial obstacles. This approach, with few exceptions such as in cases where rootstock resistance was sufficient to confer tolerance to the scion part of the trees, has had little impact on commercial fruit tree production. The most remarkable development in horticulture was that of pathogen-free budwood programs, now implemented for most of the economically important and vegetatively propagated fruit trees. It resulted in considerable improvements in yields ranging from 10–20% to 100% and higher, in crops where the prevalent graft-transmissible diseases had a devastating effect on yields. Two main lines of research and development in citriculture made this possible: improvements in the methodologies for obtaining pathogen-free stock material, and continuous advances in techniques for plant pathogen diagnosis.

The repertoire of rapid diagnostic methods now available is large and the methods vary considerably in their sophistication, sensitivity and scale. The choice of the proper method for the practical detection of a specific disease will depend on both the level of