

PRESENT STATUS OF *Brevipalpus* MITES AS PLANT VIRUS VECTORS

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First report of *Brevipalpus* (Acari: Trombidiformes: Tenuipalpidae) mites involved in virus transmission was made by Frezzi, in 1940, who found evidences of association of *B. obovatus* Donnadieu with citrus leprosis. Later, Musumeci & Rossetti in 1963 found that in Brazil this disease, caused by CiLV-C, is transmitted by *B. phoenicis* s.l. The same species was reported as the vector of CoRSV by Chagas in 1978, and PFGSV by Kitajima et al., in 1998. Maeda et al. in 1998 found that *B. californicus* (Banks) is the vector of OFV. Since then, several other cases of *Brevipalpus* transmitted viruses (BTV) have been described. However, introduction of new morphological and molecular criteria for the identification of some *Brevipalpus* species, particularly within the *B. phoenicis* group, resulted in significant changes in species determination. The situation became more complex when surveys revealed that *Brevipalpus* populations present in a given BTV-infected host plant may be composed by two or more species, making it difficult to determine the vector species. A reassessment of the previous description became necessary. In summary the present situation is: for the genus *Cilevirus*: *B. obovatus*, *B. phoenicis* s.l., *B. yothersi* Baker and *B. papayensis* Baker are reported as vectors; for the genus *Higrevirus* just association with *Brevipalpus* is known; and for the genus *Dichorhavirus*: *B. californicus*, *B. yothersi*, *B. obovatus*, *B. phoenicis* s.l., *B. papayensis*, *B. phoenicis* (Geijskes) and *B. aff. yothersi* were reported as vectors. More careful studies are necessary, using laboratory reared isolines of mites to determine the vector and parameters of vector-virus relationship.

Keywords: *Brevipalpus*-transmitted viruses.

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