



Platinum Jubilee Celebration

8th International Conference
(Hybrid Mode)

Plant Pathology: Retrospect and Prospects

March 23-26, 2022

Venue:
Sri Karan Narendra Agriculture University
Jobner-Jaipur, Rajasthan, India

ABSTRACTS & SOUVENIR

Supported by



ORGANIZERS

WWW.JPSDIS.ORG

S.C. Dubey, V. Celia Chalam, K.S. Hooda, M.S. Saharan, Kalyan K. Mondal, Atul Kumar, Malkhan S. Gurjar, G. Prakash, Robin Gogoi, R.P. Ghasolia, Rajesh K. Bagri, Anand Kumar Meena, B.S. Chandrawat, Pinki Sharma, M. Raja, Shaily Javeria (eds.) 2022, IPS 8th International Conference on “Plant Pathology: Retrospect and Prospects”, March 23-26, 2022 at SKN Agriculture University, Jobner-Jaipur, Rajasthan India pp.

IL04(2B): Viruses transmitted by *Brevipalpus* (Acari: Tenuipalpidae) mites: overview and updates

Juliana Freitas-Astúa^{1,2}, P.L. Ramos-González², C. Chabi-Jesus^{2,3}, A.D. Tassi^{2,3}, E.W. Kitajima³

¹Embrapa Cassava and Fruits, Brazil, ²Instituto Biológico, Brazil, ³ESALQ/USP, Brazil.

Brevipalpus-transmitted viruses (BTVs) cause economically important diseases such as citrus leprosis and coffee ringspot, which affect relevant crops mainly in the Americas. Additionally, at

40

8th International Conference (Hybrid Mode)
Plant Pathology: Retrospect and Prospects
March 23-26, 2022 SKNAU, Jobner-Jaipur, Rajasthan



least one of them, orchid fleck virus, naturally infects orchids worldwide and citrus in three American and African countries. Disease symptoms caused by BTVs are characterized by the presence of localized chlorotic, necrotic, or ringspot lesions on the aerial parts of the plants. There are no reports of BTVs invading their hosts systemically under natural conditions, and they are all transmitted by *Brevipalpus* spp. mites in a persistent manner. Taxonomically, they are classified into genera *Cilevirus* (family *Kitaviridae*) or *Dichorhavirus* (family *Rhabdoviridae*). Virions of cileviruses have short bacilliform morphology, with bisegmented ss(+)RNA genomes of ~9 and 5 kb, and typically six ORFs. The ICTV accepts three species of cileviruses, which are phylogenetically related to other kitaviruses and arthropod-infecting nelorpiriviruses, sandewaviruses, and centiviruses. Dichorhavirus virions present short bacilliform morphology with bisegmented ss(-)RNA genomes of ~ 6 kb each and six ORFs. So far, five species of dichorhavirus are accepted by the ICTV, and they are phylogenetically closer to viruses belonging to the genus *Betanucleorhabdovirus*. Recently, five new cile-like kitaviruses were characterized in Hawaii, Iran, and Brazil. Four of them are transmitted by or have an association with, *Brevipalpus* mites. Three new tentative species of dichorhavirus transmitted by *Brevipalpus* spp. are under characterization in Brazil. The increasing list of BTVs includes pathogens that infect a variety of plant hosts in expanding geographic regions and will be addressed in this talk. Support: Fapesp.