DISEASE NOTE

FIRST REPORT OF *TOMATO INFECTIOUS CHLOROSIS VIRUS* FROM TOMATO IN APULIA, SOUTHERN ITALY

R. Spanò[1], T. Mascia[1,2], S.A. Minutillo[3] and D. Gallitelli[1,2]

[1] Dipartimento di Biologia e Chimica Agroforestale ed Ambientale, Università degli Studi "Aldo Moro", Via Amendola 165/A, 70126 Bari, Italy
[2] Istituto di Virologia Vegetale del CNR UOS Bari Via Amendola 165/A, 70126 Bari, Italy
[3] Agritest, Tecnopolis Valenzano (Bari)

A severe disease of tomato was observed in 2010 in a greenhouse in the province of Lecce (Apulia, southern Italy). Plants showed interveinal yellowing and thickening of mature leaves and a bushy appearance of the new growth. Pale-yellow spots, which became sunken and necrotic, were scattered on the fruit surface. Leaf symptoms were reminiscent of those induced by *Tomato chlorosis virus* (ToCV) or *Tomato infectious chlorosis virus* (TICV), while fruit symptoms recalled those of *Tomato spotted wilt virus* (TSWV). Symptomatic leaf tissues and fruits collected from six tomato plants cv. Genio were analysed by dot blot hybridization (Saldarelli *et al.*, 1996) using DIG-labelled DNA probes of the Agritest tomato kit (Agritest, Italy) specific for the following viruses: *Alfalfa mosaic virus* (AMV), *Cucumber mosaic virus* (CMV), *Pelargonium zonate spot virus* (PZSV), *Pepino mosaic virus* (PepMV), *Potato virus X* (PVX), *Potato virus Y* (PVY), *Tobacco mosaic virus* (TMV), TICV, ToCV and TSWV. In two of the six samples a mixed infection of TICV and TSWV was detected, whereas only TSWV was present in the remaining samples. TSWV but not TICV was transmitted to tomato cvs UC82, Faino, Diaz, and Messapico by mechanical inoculation using extracts from thin slices of fruit epidermis cut near the necrotic areas. All tomato cultivars became infected systemically suggesting that the TSWV isolate was of the resistance-breaking type (Ciuffo *et al.*, 2005). TICV has been recorded from tomato and artichoke in different Italian regions (Liguria, Sardinia, Latium, Campania and Sicily) but not from Apulia. Its presence in mixed infection with TSWV suggests that some synergistic interaction may occur to facilitate plant invasion, as reported for ToCV and TSWV (García-Cano *et al.*, 2006).

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Corresponding author: R. Spanò
Fax: +39 080 544 2906
E-mail: roberta.spano@uniba.it

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DISEASE NOTE

FIRST REPORT OF *APPLE STEM PITTING VIRUS* AND *APPLE CHLOROTIC LEAF SPOT VIRUS* IN TUNISIAN PEAR ORCHARDS

N. Mahfoudhi[1], R. Moujahed[1], W. Salleh[1], M. El Air[1] and K. Djelouah[2]

[1] Laboratoire de Protection des Végétaux, Institut National de la Recherche Agronomique de Tunisie, Rue Hedi Karray 2049 Ariana, Tunisia
[2]Istituto Agronomico Mediterraneo, Via Ceglie 9, 70010 Valenzano Bari, Italy

Pear hosts many viruses, including *Apple stem pitting virus* (ASPV) and *Apple chlorotic leaf spot virus* (ACLSV). During a survey conducted to assess the sanitary status of pear orchards in Tunisia, leaf samples were collected in spring 2010 from 106 trees in two mother blocks of local and introduced cultivars. The presence of ACLSV was tested in all samples by DAS-simultaneous ELISA (Flegg and Clark, 1979) using a commercial kit (Loewe, Germany) and in 44 samples by RT-PCR from total nucleic acids extracted from leaf veins and purified according to Foissac *et al.* (2001). PCR primers for both viruses were: (i) ACLSV-sense 5'-TTCATGGAAAGACAGGGGCAA-3' and ACLSV-antisense 5'-AAGTCTACAGGCTATT-TATTATAAGTCTAA-3', that amplified of a 677 bp fragment; (ii) ASPV-sense 5'-ATGTCTGGAACCTCATGCT-GCAA-3' and ASPV-antisense 5'- TTGGGATCAACTT-TACTAAAAAGCATAA-3', that amplified a 370 bp fragment (Menzel *et al.*, 2002). Serological analysis showed that nearly 45% of the samples were infected with ACLSV, a result confirmed by RT-PCR. As to ASPV, the expected 370 bp amplicon was obtained from 40% (18 of 44) of the samples tested. To our knowledge, this is the first report from Tunisia of ASPV and ACLSV infections to pear. The high incidence of these viruses is probably due to the use of standard propagating material consequent to the lack of a certification program in the country.

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Corresponding author: K. Djelouah
Fax: +39.080.4606275
E-mail: djelouah@iamb.it

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