



First report of tomato yellow leaf curl virus infecting tomato in Azerbaijan

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During surveys conducted in September 2014 in Azerbaijan, 45 tomato samples from different regions were collected from Absheron peninsula near Baku (12), Ganja, Samukh and Shamkir (West) (20), Guba and Khachmaz (North) (13). In Absheron, where large whitefly populations were present, tomato crops displayed stunting, yellowing and upward leaf curl. Total DNA was extracted from all samples. PCR was performed with begomovirus primers and tomato yellow leaf curl virus (TYLCV) primers (Accotto et al. 2000). Eleven samples from experimental fields of two Agricultural Research Institute (ARI) stations in Absheron were positive, whereas all other samples were negative. Two amplicons were sequenced (472 nt) and both showed 97.5% identity with the reference TYLCV-[IL-Reo-86], X15656. The complete sequence of one isolate was obtained after rolling circle amplification (RCA) and cloning. The genome was 2783 nt long, with a typical monopartite begomovirus organization (GenBank accession No. KY412552). Sequence comparisons using Sequence Demarcation Tool (SDT) (Brown et al. 2015) confirmed that the sequenced begomovirus, named TYLCV-[AZ-Abs-14.1], is indeed a strain of TYLCV, closely related to TYLCV isolates from North-eastern Iran (98.9% nt identity with TYLCV-[IR:Boj:28-2], KC106644), suggesting an introduction from this region. In 2009 and 2010 the

presence of TYLCV infection in tomato was suspected owing to the presence of TYLCV-like symptoms, but never molecularly confirmed (Grigorias et al. 2010). Since TYLCV in Azerbaijan seems to be present only in Absheron region, although its vector *Bemisia tabaci* was observed everywhere, it is important to limit the spread of this highly damaging virus by preventing plant material exchanges.

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