

6th International Conference on

Genomics & Pharmacogenomics

September 12-14, 2016 Berlin, Germany

Phylogenetic analysis of TYLCV on tomato plants in Kuwait

Ebtesam Al-Ali, H Al-Hashash, H Al-Aqeel, A Ben Hejji and N Al-Shayji

Kuwait Institute for Scientific Research, Kuwait

Viral diseases of plants are widespread and cause significant economic losses in many crops. A survey of tomato viral diseases in Kuwait was conducted, the high economic losses of tomato crops induced by whitefly emerged a rapid action for identification and molecular characterization of the virus species in order to recommend appropriate control strategies. Tomato Yellow Leaf Curl Virus (TYLCL) was reported as a major pest of tomato. TYLCV isolated from severely diseased tomatoes collected over a two-year period in the main tomato growing area of Kuwait (Abdaly North) was characterized at the molecular level and the complete genomic sequence was determined. Based on the genome structure and organization and phylogenetic analysis, the *Begomovirus* was found to be a strain of TYLCV. One isolate that was characterized in this study had 97% and 95% nucleotide sequence identity with previously characterized Kuwaiti isolate, TYLCV-KISR and the highest sequence identity (95%) was with that of TYLCV-Almeria (Spain) isolate. Phylogenetic analysis showed that the Kuwait isolate could be a novel variant of TYLCV and suggested to be in a different lineage from known TYLCV sequences.

Biography

Ebtesam Al-Ali has obtained her BSc in 1993 from Kuwait University, worked for Kuwait University as Research Assistant, then joined KISR in 1993 and led 5 projects. She has published more than 5 papers in reputed journals and international conferences. Her field of experience, in plant virus detection, primer design, cloning and sequencing, ELISA, DNA Extraction, PCR Amplification, RCA Rolling Circle Amplification, TYLCV detection on tomatoes, also trained twice in the University of Wisconsin Madison under the supervision of Prof. Amy Charkowski as well as at the University of Washington state under supervision of Pro. Hanu Pappu.

ebtisam_alali@hotmail.com**Notes:**