



Xylella fastidiosa does not occur in Lebanon

In 2015, a paper suggesting the presence of *Xylella fastidiosa* (EPPO A1 List) in Lebanon was published (Temsah, 2015). The bacterium was detected on oleander (*Nerium oleander*) showing leaf scorch, chlorosis and stunting symptoms in the campus of the American University of Beirut. The presence of the bacterium was confirmed by ELISA and by *in situ* observations made with a scanning electron microscope. However, no isolation and culturing on appropriate growing media were done at that time. Considering the potential risk presented by *X. fastidiosa* on agricultural and landscaping plants in Lebanon, an extensive survey was conducted across the country, covering olive growing areas, nurseries, ornamental plants and other potential hosts (e.g. *Acacia saligna*, *Coffea arabica*, *Myrtus communis*, *Olea europaea*, *Polygala myrtifolia*, *Spartium junceum*, *Prunus spp.*, *Vitis spp.*, *Westringia fruticosa*). In the main olive growing areas, the survey was initiated in May 2014. Samples were collected during three vegetative seasons from a total of 82 olive trees (covering 24 groves). In addition, 30 grapevine plants with symptoms resembling those of Pierce's disease were collected during autumn 2014. Following the initial finding on *N. oleander*, twig samples were collected from oleanders (32 trees) at the American University campus to confirm the earlier ELISA results by molecular, serological and isolation methods. In spring 2015, samples were also taken from nurseries which had imported ornamentals and olive seedlings from Italy in 2014-2015. Several methods were used (ELISA and DTBIA with specific antibodies, PCR with three specific sets of primers, isolation on four growing media) but all results were negative for *X. fastidiosa*, including those for the samples from oleander. It is suggested that the ELISA-positive samples initially obtained were false-positive. It is noted that the presence of leaf scorch symptoms which were frequently observed during the survey may have multiple origins, abiotic or biotic (e.g. drought, salty winds, nutrient deficiency/toxicity, frost damage, fungal pathogens). On the basis of the survey results, it is concluded that *X. fastidiosa* does not occur in Lebanon.

Sources

- Habib W, nigro F, Gerges E, Jreijiri F, Al Masri Y, El Riachy M, Choueiri E (2016) *Xylella fastidiosa* does not occur in Lebanon. *Journal of Phytopathology* (in press).
- Temsah M, Hanna I, Saad A (2015) First report of *Xylella fastidiosa* associated with oleander leaf scorch in Lebanon. *Journal of Crop Protection* 4, 131-137.