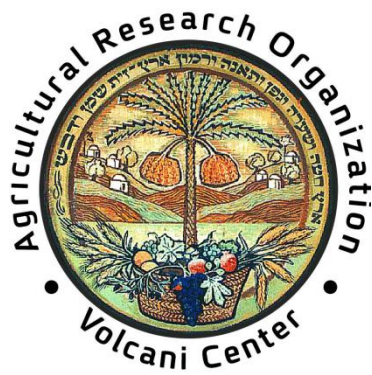


Candidatus Liberibacter solanacearum haplotypes D and E: symptoms and vector species



Pictures provided by:
Ester Marco Noales, IVIA
Ofir Bahar, ARO



Pictures provided by : Alberto Ferreres

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Haplotypes D and E: symptoms



Proliferation of shoots, yellowing and curling of leaves, proliferation of secondary roots, and plant stunting were observed on infected carrots, celery, parsley and chervil (ANSES).

Haplotypes D and E: symptoms



Different degrees of axillary shoot formation on carrots in Israel (ARO VOLCANI)

Parsnip: leaf reddening and slight proliferation (INRA)

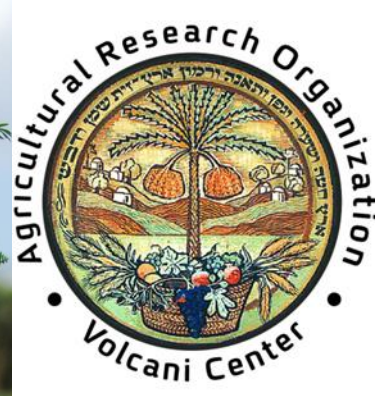
Petroselinum crispum var. Tuberosum: leaf reddening and slight proliferation (INRA)



Haplotype D
Israel
CaLsol
affected
carrots



Haplotype D
Israel
Left: healthy carrot
Right: CaLsol
affected
carrot





CaLsol Haplotype E
affected carrot
Villena (Alicante, Spain)

Haplotype E
Villena (Alicante,
Spain)
Left: healthy carrot
Right: CaLsol
affected
carrot





Villena (Alicante, Spain)
CaLsol affected celeries



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Left: abnormal proliferation of stems on parsnip in Spain (Agrícola Villena, Coop. V.)
Right: vascular tissue browning on parsnip in Spain (Agrícola Villena, Coop. V.);



Bactericera trigonica



Bactericera tremblayi



Bactericera nigricornis

Bactericera nigricornis



Bactericera tremblayi



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Bactericera trigonica