

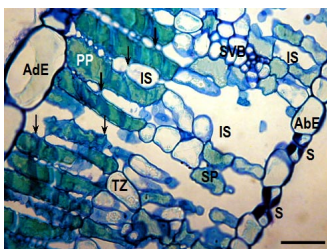
Contribution by: F. García-Breijo, J. Reig-Armiñana & V. Calatayud

Pistacia terebinthus - Microscopic Injury

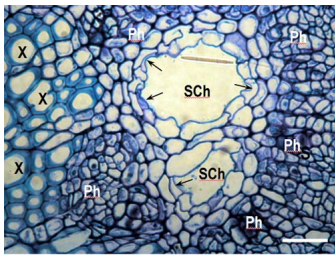
Common name: Terebinth

Microscopic symptoms induced in controlled conditions (fumigation with ozone)

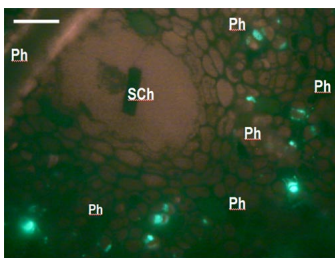
Before visible symptoms are externally evident, some alterations can be observed by microscopy (photo below): the vacuolar content of the palisade parenchyma cells (PP) shows the aspect of bands which stain differently; walls are altered (arrows), intercellular spaces (IS) increase in both the palisade (PP) and spongy parenchyma (SP); Inner tangential walls of occlusive cells of stomata (S) increase their thickness.



Before visible symptoms are externally evident, some alterations can be observed by microscopy (photo below): mature leaf stained with toluidine blue (4 weeks in the NF+40 treatment; x 1000); Phloem (Ph) cells surround two secretory canals (SC); Content of the phloem cells becomes more dense, and some cells are filled with tannins; Cells lining the secretory canal lumen are not turgent and some are degraded (arrows).



Before visible symptoms are externally evident, some alterations can be observed by microscopy (photo below): callose deposition in the phloem (white fluorescent dots) (4 weeks in the NF+40 treatment; x1000).



Visible symptoms induced in controlled conditions (fumigation

with ozone)

Fumigation of *Pistacia terebinthus* with enhanced ozone levels in Open Top Chambers (OTCs) induced brown stippling, with relatively large dots, sometimes with associated chlorosis of the older leaves.



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