

## AVOCADO BARK PITTING ASSOCIATED WITH THE LATANIA SCALE<sup>1</sup>

**M. Bar-Joseph**

*Virus Laboratory, Agricultural Research Organization, The Volcani Center, Bet Dagan, Israel*

**U. Gerson**

*Hebrew University of Jerusalem, Faculty of Agriculture, Rehovot Campus, Israel.*

Tiny pegs are sometimes formed on the inner side of tree bark as a result of plant virus diseases (5). These pegs jut into the wood, forming small pits or depressions, and can be seen easily by the naked eye. Plant virologists often consider the occurrence of such pitting as a preliminary indication of virus diseases. The discovery of such abnormalities in apparently healthy trees, especially fruit trees, therefore warrants bringing them to the attention of orchardists, extension workers and plant scientists.

During a survey for avocado virus diseases we discovered bark pegs and corresponding wood pits in the bark of avocado seedlings growing in a nursery. The pegs were quite smooth, about 1 mm deep and 2 mm in diameter (Fig. 1). Subsequently we found similar pegs and pits in a mature, commercial avocado grove. No prior mention of such abnormalities could be found in the literature.

Inspection of the affected bark revealed a close correlation between the pitting and the presence of adults of the latania scale, *Hemiberlesia lataniae* (Signoret) (Homoptera: Diaspididae). The pits occurred only underneath or near latania scale colonies, none being found on bark areas free of scale infestation. In Israel the latania scale is widely distributed within avocado groves, usually preferring the partially corked bark (3). This diaspidid is known to induce the formation of protuberances which extend from avocado fruit rind down into the flesh, where they cause corresponding pits to be left in the flesh (6).

Such bark pegs are reminiscent of the false stem-pitting found by DuCharme and Knorr (2) in rough lemon rootsprouts, induced by the California red scale, *Aonidiella aurantii* (Maskell), another diaspidid. Yet another member of this family, the purple scale, *Cornuaspis (Lepidosaphes) beckii* (Newman), caused false Cachexia like symptoms to arise in the inner bark of some citrus plants (4). Further, some diaspidids are known to secrete toxins which affect their host-plants in diverse ways (1).

Therefore we tentatively conclude that the observed avocado pitting is caused by the feeding action of the latania scale, a well-known pest of avocado.

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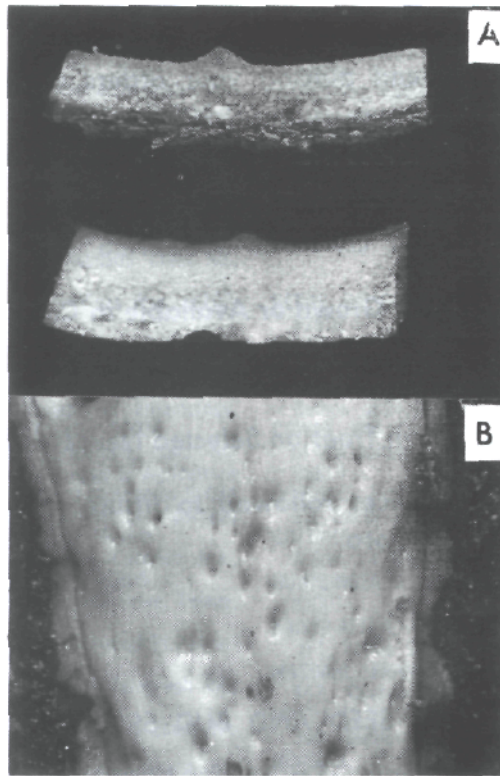


Figure 1. A. Pegs on the cambial face of transverse sectioned bark; B. Pitting on the cambial face of the wood (x 3,5).

## REFERENCES

1. BARANYOVITS, F. 1953, Some aspects of the biology of armoured scale insects. *Endeavour* 12:202-209.
2. DuCHARME. E. P. and L. C. KNORR. 1954. Vascular pits and pegs associated with diseases in citrus. *Pi. Dis. Repr.* 38:127-142.
3. GERSON, U. and Y. ZOR. The armoured scale insects (Homoptera: Diaspididae) of avocado trees in Israel. *J. Nat. Hist.*, in press.
4. GRANT, T. J., G. R. GRIM and P. NORMAN. 1959. Symptoms of cachexia in Orlando tangelo, none in sweet lime and false symptoms associated with purple scale infestations. *Pi. Dis. Repr.* 43:1277-1279.
5. HOLMES, F. O. 1964. Symptomatology of viral diseases in plants. In: Corbett, M. K. and H. D. Sisler (Eds.), "Plant Virology", University of Florida Press, Gainesville, pp. 17-38.
6. McKENZIE, H. C. 1935. Biology and control of avocado insects and mites. *Bull. Calif. Agric. Exp. Stn.* 592.