

## Avocado Sunblotch - a Viroid Disease?

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### **Abstract**

The disease is graft-transmissible but no virus particles were detected by electron microscopy of extracts or infected tissue; it was not possible to transmit mechanically or by insects. Leaves from symptomless carrier trees contained a low mol. wt. nucleic acid of c. 8S which was absent from leaf extracts from healthy trees or from symptom bearing trees. When bark was stripped from trees showing symptoms the 8S nucleic acid was found so that the characteristic bark streaking probably represents a hypersensitive reaction to infection. The 8S nucleic acid is believed to be the infective agent of sunblotch and was shown to be an RNA with a structure similar to that of other known viroids. The mol. wt. of the sunblotch RNA was 60 000-70 000. The occurrence of the viroid throughout the tissues of symptomless carrier trees explains why the rate of seed transmission in such trees is 86-100%, while in trees with the hypersensitive localization of the viroid seed transmission is only c. 5%.

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