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SEED TRANSMISSION OF AVOCADO SUN BLOTCH

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Only one virus disease of avocado is presently known. This disease, called "sun blotch" because its symptoms were originally attributed to sunburning, is not known to be transmissible other than by tissue grafts and through seeds. Most seedlings grown from avocado trees infected and showing symptoms of the sun blotch virus disease are healthy and virus free, but an occasional seedling becomes infected through seed transmission of the virus and develops characteristic symptoms.

Some infected, but symptomless, trees have been discovered which produce seedlings—all or nearly all of which are symptomless carriers of the virus. No seedlings of the latter type have developed sun blotch symptoms and they are unaffected when reinoculated, but when used as root stocks they bring about infection of the scion top. The capacity to transmit virus through seeds to all or nearly all seedlings is passed on from one seedling generation to another.

Virus-free avocado seedlings experimentally inoculated with sun-blotch virus develop characteristic symptoms of the disease but later some of them produce symptomless shoots, which eventually make up the major part of the tree. Seeds from fruits produced on a recovered limb produced seedlings which were symptom less carriers of the virus. This suggests the origin of trees which regularly produce diseased seedlings—some of which are known to have been used as rootstock parents by nurserymen and to have been responsible for a high percentage of disease in the nursery. These findings make it clear that the rootstock (seed) parent tree as well as the budwood parent source must be indexed for sun blotch to insure freedom from the disease.

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