

The incidence of *Alternaria*-caused stem-end rots and internal core-rots varies greatly from year to year and from orchard to orchard. The incubation period of this fungus, under regular storage conditions, is rather long. A method has been developed that enables us to predict, in advance of the main picking period (February – March) of fruit for prolonged storage, the incidence of decay that is likely to develop in the fruit after storage.

Treating grapefruit with ethylene and

storing it at 25°C was found to shorten the incubation period of the *Alternaria*, with the result that already after 2½ months (still before the picking period of fruit for storage), substantial amounts of fruits suffered from *Alternaria*-caused decay.

A correlation was found between the incidence of rots that develop under the above conditions and that are likely to develop following a 5-month commercial storage period at the accepted temperature of 11°C.