

Title Temperature dependence on internal browning in cucumber fruit (*Cucumis sativa*)
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Abstract

Cucumber fruit were stored at various temperatures ranging from 5-20°C. Internal browning occurred only at temperatures around 10°C, not at lower or higher temperatures. Respiration rate increased concomitantly with internal browning, indicating that it was a response to the chilling-induced browning. The appearance of the visible browning symptoms depended, apparently, on chilling-inducing temperature and some enzymatic activity. Visible symptoms were correlated with parameters of free radical metabolism. Onset of internal browning was not correlated with activities of superoxide dismutase, catalase or peroxidase nor to internal levels of glutathione, ascorbic acid and dehydroascorbic acid. Once the initial symptoms were visible, further browning was well correlated with peroxidase activity.