

Abstract

Tomato and cucumber fruits were exposed to various oxygen levels (5-100 %) at 20°C. In tomato, the higher the external oxygen level ($O_2 > 21\%$) showed higher respiration rate. In contrast, in cucumber fruit the respiration rate had a maximum at about 80% oxygen and was again lower at 100% oxygen. The internal O_2 concentration in tomato and cucumber fruits increased with the increasing oxygen levels in the storage atmosphere. Moreover, the internal carbon dioxide concentrations in both tomato and cucumber fruits showed a similar pattern as the internal oxygen concentrations. The exception was the internal carbon dioxide concentration in cucumber fruit stored at 100% oxygen: here the internal carbon dioxide concentration was lower than that in 80% oxygen.