

Differences in moisture loss characteristics among carrot cultivars Imperator Special 58, Gold Pak 28, Caro-pride, Paramount, Eagle, Celoking, Top Pak and Caro-choice during short-term storage at 13 °C and at either 80% or 35% relative humidity were investigated. Experiments were conducted over two years with an early and late harvest in each year. Moisture loss was significantly greater when carrots were stored at low relative humidity compared to high relative humidity. Consistent cultivar differences in moisture loss characteristics were observed only in the late-harvested carrots at low relative humidity. Cultivars with higher specific surface area and relative electrolyte leakage, and lower water and osmotic potentials exhibited high moisture losses. Regression analysis, however, showed that moisture loss differences among cultivars were mainly associated with the specific surface area of the root.