

Abstract

We have studied the postharvest behavior of detached leaves from pak choy (*Brassica rapa* var. *chinensis*), an Asian leafy vegetable commonly used in salad and stir-fry mixes. Color, ethylene production, soluble sugars, starch and proteins were measured during storage of leaves at 2 °C, 10 °C and 20 °C. The main limiting factor on storage life was yellowing at 10 °C and 20 °C and physiological damage in the form of wilting at 2 °C. At 20 °C, ethylene evolution occurs concurrently with yellowing with a rapid decline in sugar concentration immediately prior to yellowing. As temperature was lowered, both ethylene production and sugar decline slowed or became negligible. The rate of soluble sugar decline (in particular, glucose) appears mainly responsible for the regulation of yellowing in detached pak choy leaves with a minimal role for ethylene. Refrigeration of detached pak choy leaves appears to be an ideal technique for the extension of storage life due to the slowing of the rate of sugar decline, which appears to be a key determinant of leaf yellowing.