

Abstract:

Lamb's lettuce (*Valerianella locusta*), as a leafy vegetable, has no significant pool of carbohydrates or other respiratory substrates. Thus the photosynthetic carbohydrates built up during pre-harvest are the only source of respiratory substrates. Aim of the present study was to evaluate carbohydrate contents of lamb's lettuce during postharvest.

During 5 days storage of lamb's lettuce at 20 °C, the contents of glucose and fructose were almost constant, while sucrose declined rapidly. Lamb's lettuce stored for 8 days at 0-30°C showed a similar pattern. The higher the storage temperature the earlier sucrose declined whereas glucose and fructose remained constant at low temperatures and only started to decline at storage temperatures higher than 10°C.

Carbon losses calculated on the base of CO₂ production were compared to carbon losses calculated based on the measured levels of sucrose, fructose and glucose. As a result we found a ratio of nearly 1 straight after harvest, linearly declining during subsequent storage at 20°C.