

Abstract:

The need to develop mutual understanding and cooperation between all partners along entire supply chain from plant to consumer is the basis of modern approach towards food quality and safety. Various cultivars and rootstocks manifest ability of differential accumulation of mineral compounds, which can lead to defects and diseases. Different techniques implemented during production can also cause defects and diseases of fruit. Despite this, it is known for years that fruit must be always picked at maturity optimised accordingly to expected storage life and final consumer. During postharvest phase fruit quality could be affected by various procedures. Hot water brush machine treated fruit can be firmer, sweeter and sounder after storage than non treated ones. 1-MCP treatment is a relatively new chance to block ethylene action and retard flesh softening and acidity decline normally observed during storage. Proper timing of cooling and pulling down the oxygen level are crucial factors for out of store quality. During entire time of storage low temperature, high relative humidity, low oxygen and high carbon dioxide when applied accordingly to the existing know-how offers effective ways to maintain several quality components for fulfilment of consumer expectations/preferences. The main features of quality maintenance are high flesh firmness retention and control of loss of skin green background colour, high retention of acids and resulting from sugar to acids ratio sweetness (taste) of apples. Loss of aroma which is often noted in ULO CA is one of disadvantages of such technology of storage; however, some means to improve volatiles production seems to be available nowadays.