

Effect of Controlled Atmosphere in the Postharvest life of Raspberry cv Heritage.

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To increase postharvest life of raspberry fruits cv Heritage a combined harvest maturity, cold storage and Controlled Atmosphere (CA) experiment was designed. Fruit at two maturity stages were selected M1 (whitish pink) and M2 (light red) and stored at 0 °C and 95 % RH, under CA with 5% O₂ and different CO₂ concentrations (10%, 20% and 30%). Control fruit (for each maturity stage selected) was stored at 0 °C 95% RH and normal atmosphere.

Fruit was physically, chemically and sensory evaluated at 0, 21 and 24 days after treatment: 0= initial evaluation; after 21 days of CA and cold storage and after three days held in air at 9 °C (shelf life period).

Fruit held for 21 days at 0 °C and 30% CO₂ was damaged and non marketable. Also check fruit at conventional cold storage (0 °C) did not reach 21 days in marketable conditions.

Raspberry fruit responded well to CA of 5% O₂ and 10% or 20% of CO₂, with the highest fruit firmness, the best commercial color and a noticeable reduction of decay. M2 was rated with higher scores by the Acceptability Panel after the shelf life period. The fruit that obtained the higher score by the Trained Panel was from the treatment of 21 days of cold storage at 0 °C and CA of 10% CO₂ and 5% O₂ after four days of shelf life (9 °C).