

STORABILITY OF 'HY-MARK' CANTALOUPE MELON TREATED WITH 1-MCP
UNDER MODIFIED ATMOSPHERE

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Postharvest life of 'Hy-Mark' cantaloupe melons stored under refrigeration and modified atmosphere after postharvest treatment with 1-MCP was evaluated. Fruits were picked at commercial maturity from Pólo Agrícola Mossoró-Açu, Rio Grande do Norte, Brazil and transported by road to Embrapa's Postharvest Physiology and Technology Laboratory, in Fortaleza, Ceará, Brazil. Fruits were immersed in 'Prochloraz' (500 mg.L⁻¹ i.a.) for 3 minutes prior to 1-MCP treatment. Fruits were stored under refrigeration (5±1 °C and 93%±2% R.H.) for 22 days. Evaluations were carried out for respiration and ethylene liberation rates, weight loss, appearance, total chlorophyll content and pulp firmness. A randomized design was applied to the experiment with 4 replicates per treatment and 1 fruit as replicate. A factorial arrangement (2 x 2 x 7) was used with two concentrations of 1-MCP (0 and 300 ppb), two atmosphere conditions (with or without modified atmosphere.) and seven evaluation intervals (0, 7, 15, 22, 25, 27, and 30 days). As effects of 1-MCP alone, respiration rate and ethylene production, were reduced, and these were more pronounced when 1-MCP was associated to modified atmosphere. The association also produced the best results for weight loss and fruit appearance, extending fruits acceptance for up to 30 days after harvest (22 days under refrigeration followed by 8 days at room temperature).