Sapote mamey (Pouteria sapota) fruit commercialization to different markets is limited due to the fact that it is a host of the fruit fly (A. serpenlineii), so there is a special interest in generating a quarantine treatment protocol. In this present study, fruits from Jalpa de Méndez, Tabasco, Mexico, were harvested at physiological maturity and divided into two groups: a) fruits treated with hot water (46.1°C) for 1 h, and b) control fruits, with no hot water treatment. Fruits were then stored at 12°C for 7, 14, 21, and 28 days. After storage, days to ripening as well as respiration rate, ethylene production, and weight loss were evaluated for 6 days. Pulp color (lightness, hue angle, and chroma), fruit firmness, total soluble solids and sugars, and total phenols (at the end of storage and 6 days after) were also evaluated. Results show that fruits stored for 0 days ripened in 5.8 days, while fruits stored between 7 and 28 days took between 3.2 and 5.6 days to reach the ripe stage. Considering the storage periods, effective postharvest life was increased between 11 and 32 days. Respiration rate markedly increased in control fruits after 21 days of storage, but no chilling injury symptoms were observed. Hot water treatment did not affect ethylene production, sugar or phenol content, color, and fruit firmness. Total soluble solids and sugars increased as storage period increased and even more after storage, thus suggesting that storage temperature does not stop the ripening process. No significant changes were observed in the color components. Results suggest that the hot water immersion treatment is an alternative to reach the quarantine protocol (not affecting quality) and when combined with refrigeration could be used to send fruit to distant places.

(203) Responses of ‘Golden Delicious’ Apples to 1-MCP Applied in Air and Water
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The efficacy of the ethylene action inhibitor 1-methylcyclopropene (1-MCP) applied in water to slow ripening of ‘Golden Delicious’ [Malus sylvestris var. domestica (Borkh.) Mansf.] apples was evaluated in comparison with 1-MCP applied as a gas in air. The material was applied by dipping fruit in 1-MCP water solutions (0.0, 0.03, 0.3 or 3 μM) for 4 min, or by exposing fruit to 1-MCP gas (0.0, 0.01, or 1 μL·L−1) in air for 12 h. Fruit were held in air at 20°C for 25 days after treatment or stored at 0.5°C in air for up to 6 months followed by 7 days in air at 20°C. Application of 1-MCP in water or air delayed the increase in respiration and ethylene production associated with fruit ripening, and reduced the amount of fruit softening, loss of acidity and change in peel color. Treatments applied in water required a higher concentration than those applied in air to induce similar physiological responses. Fruit responses to 1-MCP varied with treatment concentration, and the maximum effects were observed at concentrations of 0.1 or 1 μL·L−1 in air and 3 μM in water. Peel color change was impacted less than retention of firmness and titratable acidity for some 1-MCP treatments. The application of 1-MCP was less effective for slowing peel degreening when treated fruit were stored at 0.5°C compared to storage at 20°C. In 1 of the 3 years of this study, fruit treated with 1-MCP and stored in air at 0.5°C developed a peel disorder typified by a gray-brown discolouration that is unlike other disorders previously reported for this cultivar.