

Title The role of ethylene in determining oil rose (*Rosa damascena* Mill.) storage life
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Abstract

Oil rose (*Rosa damascena* Mill.) flowers were hand harvested on 1 July 2010 and stored immediately at 0°C temperature for 40 days in controlled atmosphere conditions (3 % O₂ + 15 % CO₂ Atmospheric composition) with (ethylene converter is not running) or without (ethylene converter is running) ethylene. Weight loss, respiration rate, ethylene production, petal colour and sensory evaluation (general appearance, wilting and drying) were performed at harvest date and at 10 days intervals during cold storage. The respiration rate and ethylene production values were lower in petals stored without ethylene than those of with ethylene. Weight loss was lesser in the petals stored with ethylene than those of without ethylene. The petals stored without ethylene showed less colour change (5.04) than those of others (5.37). The petals stored with ethylene were acceptable till 10 days of storage and showed moderate (2.00 point) wilting and drying while the others could be stored for 20 days with moderate (2.28 point) wilting and drying according to sensory evaluation.