Flowers of *Dendrobium* Walter Oumae 4N treated with 50 and 500 ppb 1-methylcyclopropene (1-MCP) for 6 and 12 hrs were studied. 1-MCP had effect on vase life, respiration rate, ethylene production, water uptake and fresh weigh. Flowers treated with 500 ppb 1-MCP for 12 hrs had the lowest respiration rate and ethylene production compared to untreated flowers (control) and had the longest vase life (20 days), while untreated flowers had 15 days of vase life. Flowers treated with 1-MCP decreased weight loss and increased water uptake.