

Title Active modified atmospheres affecting quality of holy basil
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Abstract

Thai holy basil (*Ocimum sanctum* L. 'Khao') branches were kept in modified atmospheres with five different methods at 13°C. Methyl eugenol was a major essential oil (1/4 of all essential oils) in the mature leaves and the levels decreased gradually during storage period, especially in all sealed non-perforated bags. Basil branches stored in all non-perforated polyethylene (PE) bags lost less fresh weight resulting in extended storage life, compared to those in perforated bags. However, packing basil in non-perforated PE bags, with 10% CO₂ initially, shortened storage life due to CO₂ injury and decay during storage. PE bags packed with ethylene absorbents (EA) inside or PE bags with 5% CO₂ initial flush provided the best conditions to maintain quality of stored basil for over 12 days of storage life. However, PE bags with EA inside were recommended for commercial use due to practical considerations.