

## Abstract

Experiments were conducted to develop marketing, production, and postharvest storage recommendations for edible flowers. Chefs and consumer participants rated edible flowers based on characteristics such as fragrance, taste, and visual characteristics. Chefs were more likely to rate the attributes and uses of the flowers lower than consumers, with the exception of *Tropaeolum majus* L. 'Jewel Mix'. Consumer participants also evaluated edible-flower color and color combinations, container size, and price. A second group rated all characteristics except price. Flower color was allocated the most points in the purchasing decision (63% for the first group and 95% for the second), with the mixtures of all three colors (blue, yellow, and orange) being the most desirable. To determine the level of flower quality consumers would accept, two groups of participants were shown photographic slides of the flowers with visual quality ratings on a scale of (1-5, 5 being flawless). Both groups awarded identical visual quality ratings for all species except *Borago officinalis* which varied with ratings of 5 to 3 or 5 to 4. Eight species were grown for 12 to 18 weeks in a certifiable organic (30% mineral soil) potting medium and fertilized with two organic fertilizers at 300 or 600 ppm N every two weeks. Growth and nutrient content were compared to plants grown with the same mineral soil or a soilless medium fertilized with a synthetic water soluble fertilizer at 300 ppm. Shoot dry weight and tissue P concentrations were generally higher with a 6N-2.6P-5K organic fertilizer (Omega 6-6-6) than with the 5N-0.4P-0.8K fish emulsion fertilizer or the 19N-1.8P-19K complete water soluble fertilizer. Shoot tissue N, K, Ca, Mg and micronutrients were in the sufficiency range. Root media pH and EC were in the acceptable range except for the 600 ppm rate of the Omega 6-6-6. The organic fertilizers were not more acidic than the water soluble. Three of five edible flowers received ratings of 5 when stored at 0 to 2.5°C after two weeks, with *B. officinalis* flowers still marketable, 3 or higher, after two weeks at -2.5°C. *Phaseolus coccineus* L. flowers were marketable at 0 to 10°C, after one week, but unmarketable after 10 d at 0 and 2.5°C, 9 d at 5°C, and 7 d at 10°C.