

Postharvest Fertility Management of Ivy Geranium Hanging Baskets

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Pelargonium peltatum (L.) L'Her ex Ait. 'Bartlett's Pink' (ivy geranium) is one of the top-selling hanging baskets in New England and adjacent areas. To keep the plants' growing vigor, postproduction fertility management is the key issue to be investigated. Ivy geranium was grown under liquid fertilizer culture until it reached marketable size on 4 June 1999. Then three different fertilizers (two slow-release and one organic) were applied at concentrations of 1.2, 2.4, 3.6, and 4.8 g pure nitrogen levels, and all hanging baskets were placed in four different family-owned nurseries. Overall performance, media pH, electrical conductivity (EC), and nutrients were measured every 3 weeks, and tissue nutrients were analyzed every 6 weeks. Ivy geranium requires high fertility. Mature, healthy plants could not survive for 3 months without extra fertilizer. The best performance was observed under the 4.8-g pure nitrogen treatment using Osmocote Plus slow-release fertilizer. Organic fertilizer (F & B brand) could not satisfy the growing requirement of the plant. Medium pH ranged from 5.5 to 7.2, and no significant effect was observed among the different fertilizers and concentrations. EC decreased in the first 3 weeks, then increased to the highest level at the end of the sixth week. EC slowly decreased after 6 weeks. Compared with slow-release fertilizers, organic fertilizer had significantly higher EC. Macronutrients in media followed the same trend as EC, as did N and P levels in leaf tissues. K levels in leaf tissues were relatively stable and so were Ca and Mg levels. The results indicate that slow-release fertilizers can be applied to charge ivy geranium hanging baskets for 3 months. For organic fertilizer treatments, the higher EC levels and low plant performance should be further studied.