

(73) Effect of Media on Growth of *Euphorbia pulcherima* 'White Star'

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Euphorbia pulcherima Willd. ex Klotzsch (poinsettia) are grown commercially in all 50 states. This experiment was conducted to find a suitable media for cultivating 'White Star' poinsettia under natural day-length conditions in Orono, Maine. The growth, morphology, and foliar and substrate nutrient concentration of 'White Star' poinsettia was evaluated in three different media formulations (Promix[®], Metromix-560[®], and a 1:1 v/v mixture of Promix[®] and Metromix-560[®]). Results indicated minimal variability in overall plant height, but there were significant differences in the canopy area. Canopy area was greatest for plants grown in Promix[®] followed by a combination of Promix[®] and Metromix-560[®]. Plants grown in Promix[®] recorded the highest fresh weight (170.6 g). Bract area was statistically insignificant among the three treatments. Nutrient status of the media varied widely and was significant for nitrate-nitrogen, phosphorus, soluble salts, iron, calcium, magnesium, manganese, sodium, sulfur, and zinc. Foliar analysis revealed that nutrient concentrations also significantly differed across treatment media. Optimum media pH for growing poinsettia ranges from 6.0 to 7.5. Media pH for Promix[®] was 5.9, which was significantly higher than Metromix-560[®] (4.65) and Promix[®] + Metromix-560[®] (1:1 v/v; 5.3). In spite of significant differences in foliar and substrate nutrient concentrations, overall plant growth remained the same.