

Abstract:

We investigated the influence of a spray application of LPE on the marketable quality of bedding plants subjected to cycles of water stress using number of flowers per plant as an indicator of marketable quality. One week after transplanting, plants were sprayed to drip with a solution containing 0, 50, 100, or 200 ppm LPE. The Impatiens were put under drought stress by withholding water, and drying to wilt between each watering. Following a water stress cycle, LPE-sprayed plants consistently had a higher number of open flowers compared to control plants. With subsequent stress cycles, the differences between LPE and control became larger and more significant. In most cases LPE-treated plants had more than twice the number of open flowers per four-pack and recovered more quickly from periods of stress than controls. LPE has the potential to enhance the opening and retention of flowers on bedding plants undergoing water stress cycles during marketing.