

## **Effect of different concentrations of benzyladenine and frequency of watering on growth and quality of *Dracaena sanderiana* and *Codiaeum variegatum***

### **ABSTRACT**

The effect of benzyladenine concentration and watering frequency on the growth and quality of *Dracaena sanderiana* and *Codiaeum variegatum* was evaluated. Plants were treated with different benzyladenine concentrations of (0, 75, 150, 225 or 300 mg l<sup>-1</sup>) and watering frequencies, daily, every 4, 7 or 10 days interval. Benzyladenine concentration and watering frequency interacted significantly for plant grade on both species. This interaction resulted in the highest grade at 225 mg l<sup>-1</sup> benzyladenine and daily watering for *D. sanderiana* and 150 mg l<sup>-1</sup> benzyladenine and daily watering for *C. variegatum*. No significant interactions between benzyladenine concentration and watering frequency were observed for photosynthesis rate, stomatal conductance, specific leaf area and fresh weight of either species. For *D. sanderiana*, the highest photosynthesis rate (5.70 mmolm<sup>-2</sup>s<sup>-1</sup>) occurred at 225 mg l<sup>-1</sup> and decreased with increasing watering frequency. For *C. variegatum*, the highest photosynthesis rate (4.49 mmolm<sup>-2</sup>s<sup>-1</sup>) was recorded with benzyladenine concentration of 150 mg l<sup>-1</sup>, and photosynthesis rate was found independent of watering frequency. For both species, stomatal conductance was recorded highest at 225 mg l<sup>-1</sup>, but watering frequency failed to influence stomatal conductance. For better quality, *D. sanderiana* should be sprayed with benzyladenine at 225 mg l<sup>-1</sup>, and *C. variegatum* with benzyladenine at 150 mg l<sup>-1</sup> in combinations with watering at 4 days interval.

**Keyword:** Benzyladenine; *Codiaeum variegatum*; *Dracaena sanderiana*; Growth; Irrigation