

## The Use of Florel as a Production Tool on Various Perennials<sup>®</sup>

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### INTRODUCTION

Florel<sup>®</sup> brand growth regulator with the active ingredient ethephon, [(2-chloroethyl) phosphonic acid] at 3.90% has been show to be effective in increasing lateral branching on perennial stock plants. It is used to increase available cutting material while reducing the size of the actual cuttings. We undertook a study to better understand how the application of Florel would affect lateral branching of four herbaceous perennial taxa.

### METHODS AND MATERIALS

The following four herbaceous perennial taxa were used: *Coreopsis auriculata* 'Nana', *Hibiscus* 'Lord Baltimore', *Salvia nemorosa* 'Mainacht' (syn. 'May Night'), and *Scabiosa columbaria* 'Butterfly Blue'.

Florel application rates were at 0, 250, 500, and 1000 ppm. The study was carried out over a 6-week period. Plants were sprayed with the various concentrations on Day 1 and Day 15. Cuttings were taken on Day 14 and Day 28.

### RESULTS AND DISCUSSION

The following are the observations made over the test period by crop (Figs 1 and 2).

*Coreopsis auriculata* 'Nana' responded well to the Florel treatments. All concentrations proved better than control. A concentration of 1000 ppm produced very small cuttings difficult to stick. This in turn would add time to production and increase cost.

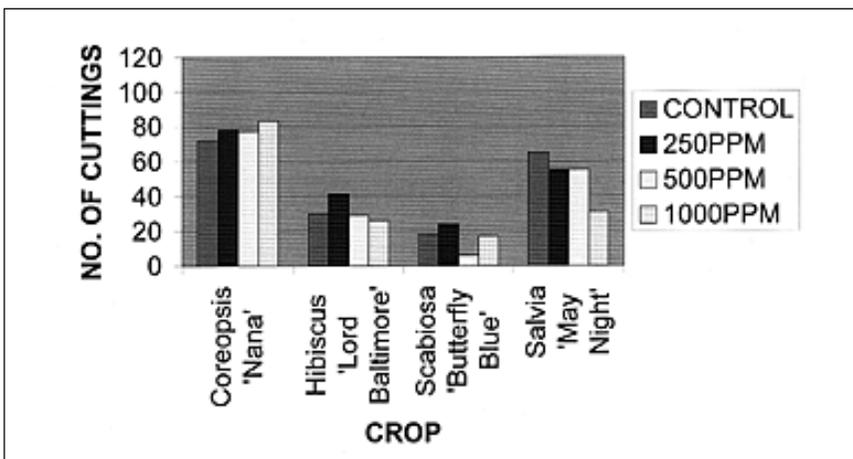
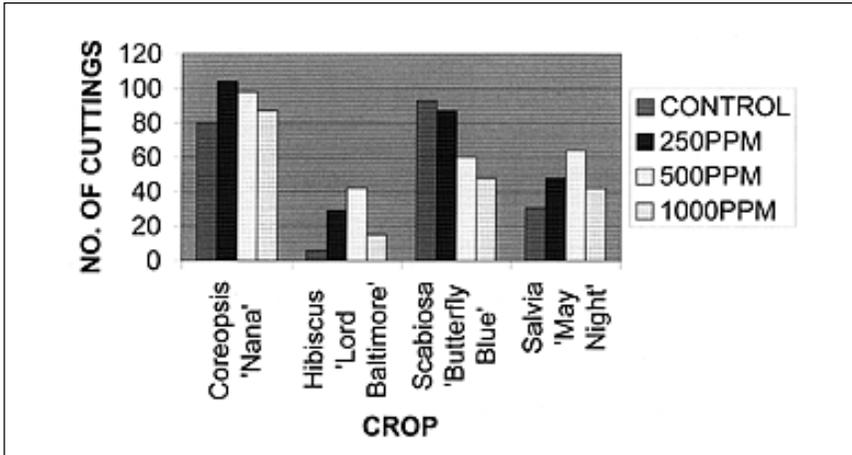


Figure 1. First round of cuttings.



**Figure 2.** Second round of cuttings.

*Hibiscus* 'Lord Baltimore' also responded well to the Florel treatments. As found with *Coreopsis* 1000 ppm seemed too high. Although shoots showed signs of increased breaks at every node, the breaks didn't grow enough to produce cuttings. At concentrations of 250 and 500 ppm breaks were noted at every node and these were quick to lengthen to size and become acceptable for production. This could be a good tool for *Hibiscus* cutting production, which has a limited production window and a limited amount of tip cuttings.

*Salvia nemorosa* 'May Night' is always a production problem due to its popularity, the large size of regular cuttings, and a predisposition to fungal rot.

Again 1000 ppm was too high; it did yield more cuttings but they were distorted and contorted. A 500 ppm treatment was the over all best concentration.

*Scabiosa columbaria* 'Butterfly Blue' responded the poorest to all test amounts. Treatments yielded a lot of flowers but few cuttings. Those sprayed with 250 ppm seemed to respond the best. Leaf size didn't decrease drastically. This may not be worth the effort as a tool to increase production.

**CONCLUSION**

More testing needs to be done especially with different taxa. To get more conclusive results this study could have lasted another month or two. As a broad-spectrum spray, 250 ppm would have a beneficial affect on most crops without having a negative influence.