Gibberellic Acid to Extend Shoots and Bud Break on *Heuchera* and *Scabiosa*

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INTRODUCTION

At Bluebird Nursery, we have been using gibberellic acid (GA_3) for several years; primarily to break dormancy and get a more uniform stand of plants, or to obtain an early batch of cuttings before the shipping season begins in March. In the fall of 1993, we were faced with a dilemma. We had added *Scabiosa* 'Pink Mist' and 'Butterfly Blue' and *Heuchera* 'Snow Angel' (a Bluebird Nursery introduction) to the catalog and as of November 1993 we had not gotten any side shoot development (cuttings) from either of the *Scabiosa* and very few cutting of the *Heuchera* since spring. To compound the problem, the above plants had all started showing signs of going dormant. At this point, we decided we better do something if we were going to have any of these plants to offer and decided to try GA_3. In the past, we have had mixed results using GA_3, ranging from little to no reaction to extreme rates of growth.

MATERIALS

Pro-Gib 4% GA
Solo pump-compression backpack sprayer
500 *Heuchera* 'Snow Angel' in 4-inch pots
1500 *Scabiosa* 'Butterfly Blue' single shoot in 4-inch pots
1500 *Scabiosa* 'Pink Mist' single shoot in 4-inch pots

PROCEDURE

Twenty-five milliliters of Pro-Gib (ProGibb 4%, Abbott Laboratories, Chem. & Ag Products Division, North Chicago, IL 60064) was added per 10 liters and sprayed on the foliage of the plants as a light mist at 2-week intervals until the desired growth rate was obtained. Ten liters of gibberellic acid solution was sufficient to spray approximately 5000 4-inch pots on the initial application and approximately 3000 4-inch pots on the second application.

Helpful Hints.

- Fertilization should increase as growth rate increases. At peak growth rate, we fertilized weekly with 20N-20P-20K at 200 ppm N, Stem trace elements, and Fe-Hampene. Lack of fertilizer will cause the plants to become scraggly and chlorotic.
- Growth that has been predetermined to terminate in flower buds before GA_3 treatment should be pinched back as soon as possible. Auxiliary buds stimulated by GA_3 will rarely terminate growth if they are receiving sufficient fertilizer; this is particularly true for *Scabiosa*. Pinching back stem growth that is terminating will also release auxiliary buds.

RESULTS

Two weeks after the initial application, a spring-like flush of growth had just started to develop. Nodal buds (previously dormant) had started to swell and terminal leaves started expanding. Two weeks after the second application, a sufficient growth rate had been obtained to make it unnecessary for any further applications. In less than a 2-month period, we had obtained over 25,000 cuttings of each of the *Scabiosa* and 6000 cuttings of *Heuchera* 'Snow Angel'.

CONCLUSION

As the race to get new plants to the market intensifies, it becomes critical to constantly look for new tools and techniques. GA_3 can be one of those tools if used sparingly. Based on our experience with *Heuchera* and *Scabiosa*, GA_3 can be used to break dormancy, promote shoot elongation (2 to 3 times normal length in heucheras), promote auxiliary bud development, and increase vegetative growth rates.

Gibberellic acid can be a useful tool for the propagation of a wide range of plants, but only practical experience under your conditions can determine its usefulness.