

Multiple Topflor Drenches for Baskets



Photo 1. 10-inch basket of calibrachoa 'Sweetheart Lavender', nine weeks after planting. Liners were pinched at planting. Plants received a B-Nine spray (2,500 ppm) during week 2 and a Bonzi drench (8 ppm) during week 5.



Photo 2. 10-inch basket of petunia 'Wave Lavender' was sprayed with B-Nine (2,500 ppm) at week 3, followed by a Topflor drench (4 ppm) at week 5. This basket is from same experiment as baskets shown below.

Hanging baskets are a huge selling opportunity for garden centers today, but controlling the vigorous varieties that make them so vibrant can be a challenge.

By Jim Barrett and Carolyn Bartuska

Attractive hanging baskets are important items for growers and retailers. The variations of interesting colors in crops such as petunia, verbena, impatiens and calibrachoa can create an enticing product for consumers. However, the vigor of many of the better basket varieties can get out of control. Large baskets that are damaged during handling or become overgrown while in retail display can be a significant loss.

The production information generated for Wave petunias has helped growers understand the importance of a PGR strategy that controls the plants early to produce compact, stronger growth, then uses a drench application to control elongation as the crops are flowering. The PGR drench produces a plant with a tight concentration of flowers. The plants will continue growing but at a controlled pace.

An example of this strategy on calibrachoa is shown in Photo 1. The plants were sprayed with B-Nine (daminozide) at 2,500 ppm at week two, and then a Bonzi (paclobutrazol) drench at 8 ppm was applied during week five. Photo 2 is an example of the same strategy on petunia that was first sprayed with B-Nine and then given a final Topflor (flurprimidol) drench. It is important to note that the optimum Bonzi or Topflor drench rate, as with other PGRs, will vary considerably for different crops and vigor levels, the greenhouse environment and desired size control.

Another approach we have been evaluating involves multiple drench applications at lower concentrations (Photo 3). The treated 'Wave Lavender' basket received four applications of Topflor at 0.5 ppm. Figure 1 shows the results for different PGR strategies on 'Wave Pink' baskets. There you can see in treatments 2, 3 and 4 the effect of increasing Topflor rates when applied once near the end of crop. Treatments 3, 5 and 7 received the same total amount of Topflor but in a different number of applications.

Impatiens is another crop where drench applications offer significant benefits to baskets. The example in Figure 2 compares a single Topflor



Photo 3. 10-inch petunia 'Wave Lavender' control (left) and treated (right), shown at week 7. The treated container received a Topflor drench (0.5 ppm) at weeks 3-6.

crop cultivation

drench applied in week three to multiple applications. Treatments 2, 3, 4 and 5 are Topflor at 0.5, 1, 2 and 4 ppm, respectively, and illustrate a nice increase in control with increasing amounts of chemical.

Treatments 6, 7 and 8 show the effect of lower concentrations and multiple Topflor applications. In this example, we did not use a spray to control early growth of the plants, and the single drench

applications were applied slightly earlier (week three) than usual. In this case, the first application of the multiple drench treatments and the single-application treatments occurred simultaneously.

Overall Implications

Applying multiple drenches at lower rates has been successful in providing control for both vigorous petunia varieties and lower-vigor impatiens. For growers, multiple applications provide greater flexibility, and crops can either be treated or left alone, depending on how the plants are growing. As with any PGR application, growers should conduct their own trials to determine individual results. To find the application rate to test for initial trials of the multiple drench technique, you can take the total amount of chemical used in a single drench and divide it by the number of drenches you plan to make. If early sprays are not used for initial growth control, it is important to start the multiple drenches early enough to obtain strong, compact baskets. **GPN**

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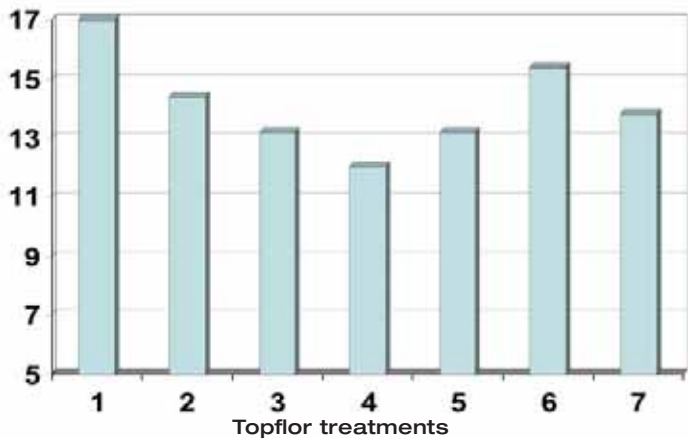
Petunia 'Wave Pink'

Figure 1. Width of 10-inch petunia 'Wave Pink' baskets under different PGR treatments, measured eight weeks after planting.

Treatments:

1. Control
2. B-Nine (2,500 ppm), week 2; and Topflor drench (1 ppm), week 4
3. B-Nine (2,500 ppm), week 2; and Topflor drench (2 ppm), week 4
4. B-Nine (2,500 ppm), week 2; and Topflor drench (4 ppm), week 4
5. Topflor drench (0.5 ppm), weeks 2-7
6. Topflor drench (0.5 ppm), weeks 2, 4 and 6
7. Topflor drench (1 ppm), weeks 2, 4 and 6

Width (inches)



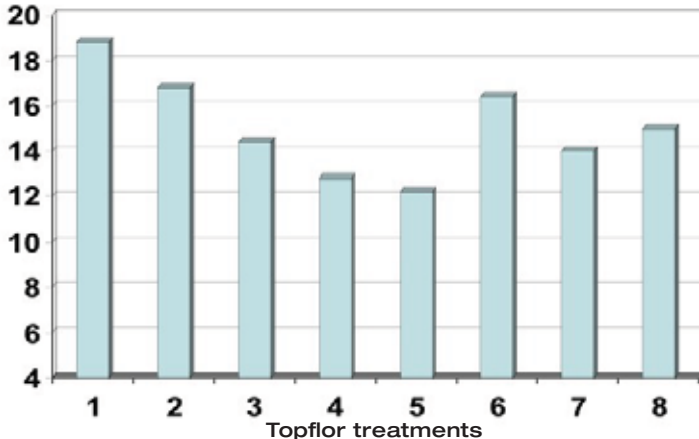
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Impatiens 'Super Elfin Lavender'

Figure 2. 10-inch baskets of impatiens 'Super Elfin Lavender' (five plugs per container), treated with various Topflor drench treatments and measured at week 8. Size is average of height and width. Topflor treatments:

1. Control
2. Topflor drench (0.5 ppm), week 3
3. Topflor drench (1 ppm), week 3
4. Topflor drench (2 ppm), week 3
5. Topflor drench (4 ppm), week 3
6. Topflor drench (0.25 ppm), weeks 3-6
7. Topflor drench (0.5 ppm), weeks 3-6
8. Topflor drench (0.5 ppm), weeks 3 and 5

Size (inches)



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