Controlling 4-inch Ivies

Multiple PGR regimes can produce compact, salable 4-inch ivy geraniums.

By Jim Barrett

Figure 1

We are seeing rapid growth in the market for plants that can work in 4½-inch to 1-gal. containers. In the industry's quest for what's new to be put in smaller containers, we sometimes overlook old favorites. An example is ivy geraniums; our collective image is of the very nice large baskets ivies can produce. However, ivy geraniums have many of the characteristics we are looking for in the smaller container format: interesting foliage, attractive and interesting flowers, numerous colors, short production times and instant recognition by many consumers. As old as ivies are, they are new in smaller containers.

An important issue with ivy geraniums is to be able to keep them small enough for this style production. Among the important factors growers need to consider are the variety's growth habit and the use of growth regulators (PGR).

The last couple of years, we did a series of growth regulator studies at the University of Florida for 4½-inch production of ivy geranium's, evaluating a number of growth regulators on the Royal series from Selecta First Class. The growth regulators we evaluated were Florel, B-Nine/Cycocel tank mix and Sumagic as a spray, drench or liner dip at planting. We used Sumagic because we generally found that it works better than paclobutrazol products on ivies. Early in the work, we found that we could control ivy geraniums with multiple Cycocel sprays. However, we were attempting to produce them with fewer PGR applications and wanted to avoid the potential of reducing quality due to leaf yellowing. ➧

Figure 2

Figure 3

Figure 4A

Figure 4B

Figure 5A

Figure 5B


Figure 6


Figure 7


Figure 8


Figure 9

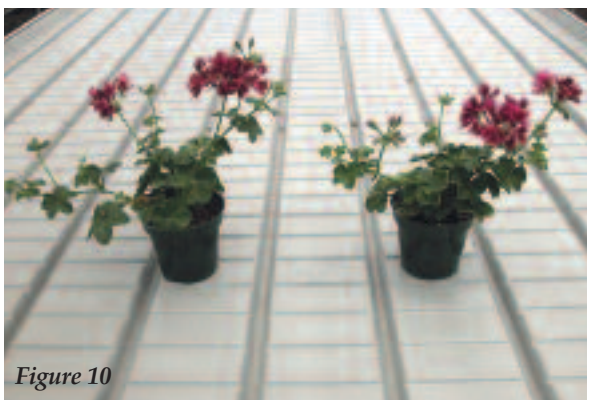
Figure 10


Figure 11

This article contains a series of pictures that illustrate the results we achieved with the different growth regulator treatments. I have included information on the planting date, when the chemical was applied and how old the plants are in the picture so you can evaluate for yourself which regime you prefer.

PGR RESULTS

Figure 1, page 60, is three cultivars that illustrate how nice ivy geraniums can be in 4½-inch containers. From left to right, these are 'Royal Salmon', 'Royal Dark Purple' and 'Royal Red' that were sprayed with a combination of B-Nine at 2,500 ppm and Cycocel at 1,250 ppm. They were planted on April 20, sprayed with B-Nine/Cycocel after one week, and the picture was taken after another four weeks. The contrast between non-treated and treated Royal Salmon plants is shown in Figure 2, page 60, and for Royal Red in Figure 3, page 60

The plant in Figure 4A, page 60, is a non-treated Royal Dark Purple, and the plant in 4B, page 60, was given a liner dip with Sumagic at 0.2 ppm prior to planting. Non-treated 'Royal Candy Cane' is shown in Figure 5A, page 60, and Figure 5B, page 60, is Royal Candy Cane with the Sumagic liner dip. Rooted cuttings were planted on December 23, and the picture was taken after seven weeks. For the liner dip the rooted cuttings were allowed to dry to the point where they needed water. Then the roots and media were dipped in the Sumagic solution for 30 seconds.

Figures 6 and 7, left, depict 'Royal White' and Royal Red, respectively, with non-treated plants on the left in each photo. Planting was done on April 23, and the picture was taken after seven weeks. At 10 days after planting, the treated plants (the plants on the right in each picture) were sprayed with Sumagic. The rates were 2 ppm on Royal White and 4 ppm on Royal Red. Spray volume was 2 quarts per 100 sq.ft.

'Royal Dark Burgundy' is shown in Figure 8, left and 'Royal Dark Lavender' in Figure 9, left. Plant date for both varieties was April 23, and the picture was taken at seven weeks. In Figure 8, left, the plant on the left is non-treated and the plant on the right had a Sumagic drench at 0.2 ppm on day 10. The plants in Figure 9, left, are, from left to right, non-treated and Sumagic drench at 0.2 and 0.4 ppm. The volume for the drench was 2 fluid ounces per pot.

Figure 10, left, is 'Royal Light Pink' with the control on the left. The plant on the right was sprayed with Florel at 300 ppm on day five and then sprayed with Sumagic at 4 ppm on day 12. Planting was done on April 23, and the picture was taken at seven weeks. Figure 11, left, is Royal Dark Purple planted on April 20 with the picture taken at five weeks. The plant on the left is the control; the plant on the right was sprayed with Florel at 500 ppm on day seven.

As these illustrations show there are different strategies that can be employed to control ivy geraniums in smaller container sizes.

FLOREL BASICS

Florel is often used on ivy geraniums in baskets. It promotes branching and provides size control. In basket production, the delayed flowering is a benefit; however, in smaller containers faster crop times are desired. For Florel use on ivy geraniums in 4½-inch production, it is important to adjust the Florel rate and application time to avoid delaying flowering. This might mean using it during propagation and not after transplanting. Another strategy is shown in Figure 10, left, where Royal Light Pink was sprayed with Florel at a lower rate first and another chemical was used later to provide more control. The second application could be either a spray, as shown here, or a drench.

Also, there are significant differences in how varieties respond to Florel. In the Royal series Dark Purple (Figure 11, left) is an example of a variety that is less sensitive to Florel, and the one spay did not give adequate height control. 'Royal Dark Red' and 'Royal Hot Pink' are not shown, but they are more sensitive to Florel, and lower rates need to be used to avoid burning the foliage.

A FEW MORE THOUGHTS

Of course, being in Florida we were interested in seeing if we could produce ivy geraniums later into the hotter months. Several of the plants shown were planted in ➧

late April this year, and the picture was taken in June when day temperatures were in the mid 90's. At these temperatures all ivy geraniums will start showing some edema, but all the varieties shown here were salable plants. Dark Purple, Red, White, Candy Cane and Dark Lavender had especially good resistance to edema. 'Royal Blue' (not shown) is a very nice variety, but when temperatures started going over 90° F the foliage began to bleach out.

Royal Dark Purple (Figures 1, 4 and 11) and Royal Candy Cane (Figure 5) have the nicest upright growth habit, which makes production in smaller containers easier. For the more trailing types shown, if a strong growth regulator is used early enough they can be done in small containers also. The point is too use the growth regulator before the laterals take off.

For growers who like to use a spray, the B-Nine/Cycocel tank mix is a good option, as it is easy to apply. The addition of B-Nine provides more control than Cycocel alone. Sumagic provides good control as either a spray or a drench. Ivy geraniums are not as sensitive to Sumagic or paclobutrazol as are zonal geraniums, and there is much less risk of overstunting the plants. The Sumagic dip applied to the rooted cuttings prior to planting offers the potential of easy application and not having to treat the plants in the finish stage.

These examples were grown in Florida under warmer conditions. Growers in the Midwest might start their own trials at about one half the rates shown here. Growers in cooler regions like the Pacific Northwest and New England might want to start with one third these rates.

All of the plants shown here, except for Dark Purple in Figures 4A and B and Candy Cane in Figures 5A and B, were pinched at planting. The varieties that branch well will produce a nice plant without pinching. The shortest crop time comes from using a budded cutting and not pinching. This crop time can be as fast as 3-4 weeks. However, if older cuttings are hardened off too much they may not fill out well enough before they start flowering. Growers should evaluate different options of non-pinched and pinched cuttings and different cutting ages to see what produces the best plant for their market. GPN

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