

October PGR Drenches for Poinsettias

October is a difficult month to use plant growth regulators on poinsettias — rapid growth is met with hesitation to impede bract development. Here are some results from trials of paclobutrazol and Topflor drenches during this tricky time.

By Jim Barrett and Carolyn Bartuska

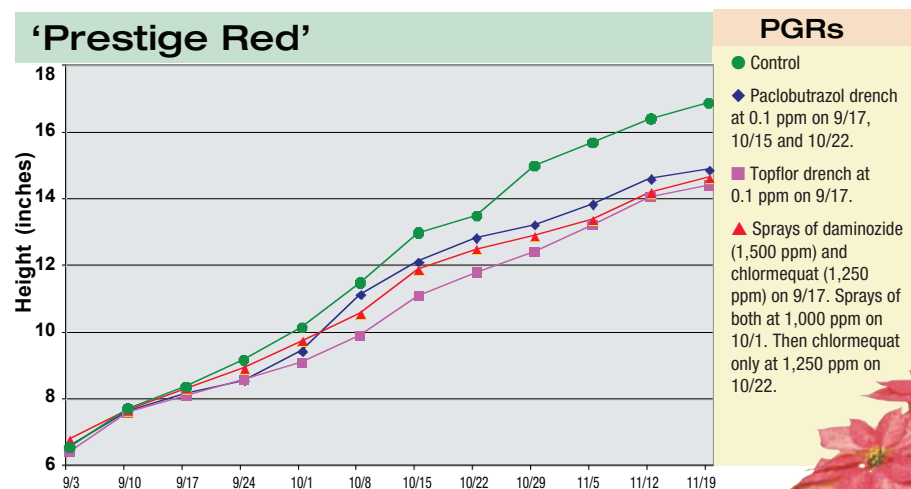


Figure 1. 'Prestige Red' was planted on Aug. 20 and pinched on Sept. 3. Target heights were 14 to 16 inches. This example was from 2008, which was a cool fall and required less PGR.

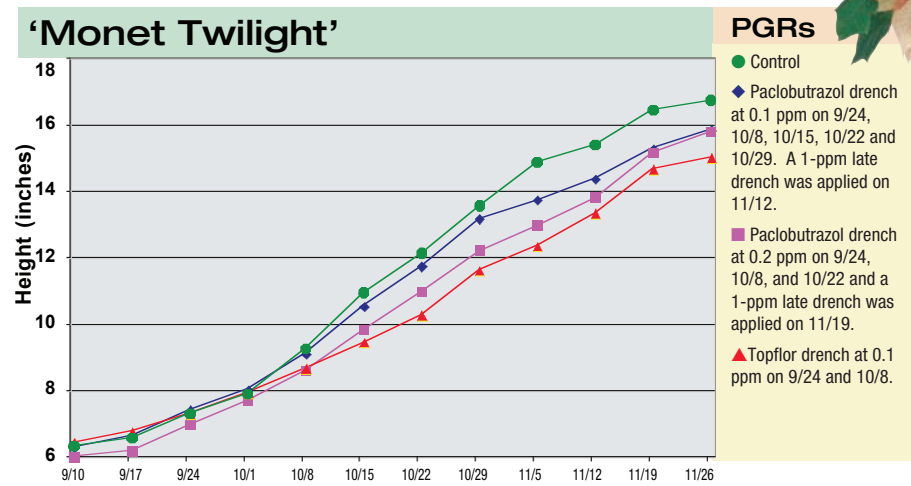


Figure 2. 'Monet Twilight' was planted on Aug. 27 and pinched on Sept. 10. Target heights were 14 to 16 inches. This example was from 2008, which was a cool fall that required less PGR.

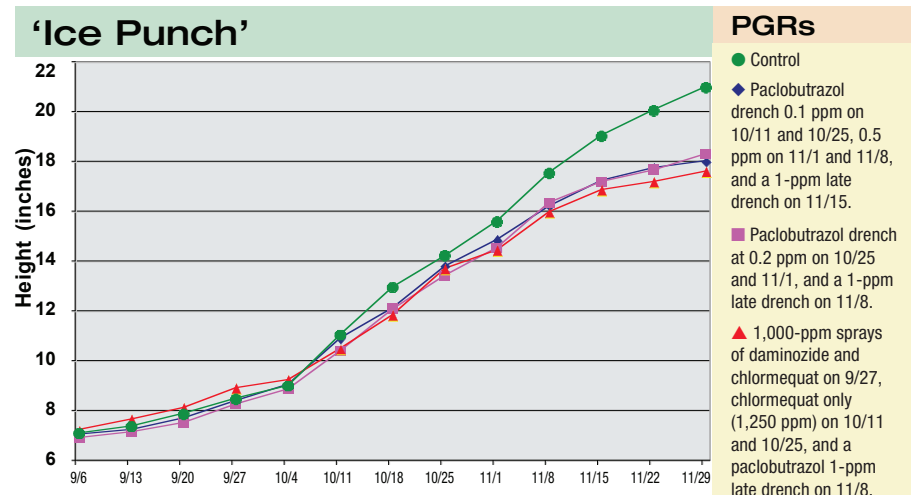


Figure 3. 'Ice Punch' was planted on Aug. 23 and pinched on Sept. 6. Target heights were 15 to 17 inches. This example is from 2007, which was much warmer than usual.

PGR applications on poinsettias can become a little difficult during the month of October: Plants are often growing rapidly, but we want to avoid putting on too much PGR, which might affect bract development. Here are some examples of using PGR drench applications in October.

Fall 2008 was cool, and we had to use less PGR than usual on most varieties. Graph 1 is 'Prestige Red' and Graph 2 is 'Monet Twilight', both Ecke varieties, from 2008. For the 'Prestige Red', we used three different approaches:

Paclobutrazol drench at 0.1 ppm, Topflor at 0.1 ppm and sprays with daminozide and chlormequat. Each was applied as needed during the fall to achieve the desired final height. All three approaches produced finished plants about 2 inches shorter than the control plants.

The use of sprays is a fairly standard approach. The cut-off date for daminozide is the start of short days, which is about Oct. 1 in Florida. The cut-off date for chlormequat is between Oct. 15 and 20. The drench treatments used here are called "early drench" and use much lower concentrations than "late drench" treatments. More details and guidelines for using early and late drenches can be found on our height-control website at hort.ifas.ufl.edu/floriculture/height2008/PGR.shtm.

Because 'Monet Twilight' is one of the most vigorous varieties, the crop shown in Graph 2 was planted a week later than the Prestige variety in Graph 1. Note how much more chemical was required when an early drench of paclobutrazol at 0.1 ppm was used on 'Monet Twilight' compared to 'Prestige Red'. Graph 2 also illustrates the benefit of using a higher dose (0.2 ppm

in this case) for vigorous varieties where more control is desired.

These examples of 'Prestige Red' and 'Monet Twilight' also illustrate the use of Topflor as an early drench on poinsettias. In the past two years, we have used Topflor as both an early and late drench on six poinsettia crops and have found that its performance is very good. The Prestige shown here required only one 0.1-ppm drench of Topflor, and the vigorous 'Monet Twilight' needed only two drench applications. It would be best to use a lower rate for more flexibility in the amount of control achieved.

Based on our experience in Florida, the optimum rate for Topflor drench on poinsettias in warm climates is probably 0.08 to 0.1 ppm and 0.5 to 0.075 in cool climates. For a late drench, we have been successful with 0.5 ppm of Topflor. In cool climates, about 0.25 would likely be the optimum amount to trial. As with any unfamiliar growth regulator, it is important to do trials to determine the optimum dosage for your situation.

'Ice Punch' has a growth habit different from most other poinsettia varieties: relatively slow to start growing after the pinch. However, once it starts growing, it can be vigorous and a little difficult to control. The example in Graph 3 is from 2007, which was a warm year. We did not use much PGR at first, then we had to work to get the plants under control. The finished plants in all three treatments were very nice, but they were larger than we wanted and had to be respaced.

Both spray and early drench application strategies can be successful. However, the early drench treatments do not have cut-off dates, which makes them useful when sprays can be more problematic.

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