



By Erik Runkle



Trending: PGR Sprechches

I've noticed an increasing trend in the use of sprech applications of plant growth retardants (PGRs), especially by large-scale commercial growers. A sprech is a hybrid of a spray and a drench application; it is applied overhead either as a high-volume spray (usually by booms) or lightly watered-in with a hose. The PGR solution is applied so that the shoots are covered and a modest amount penetrates the surface of the growing media. While sprays are typically applied at a volume of 2 to 3 quarts per 100 square feet, sprechches are roughly three times that volume, or 6 to 8 quarts per 100 square feet. Sprechches are usually only applied to plants growing in their final containers (Figure 1).



Figure 1. Sprech applications of PGRs have become more popular on aggressive bedding plant crops such as petunia.

Sprech applications can be used with most PGRs (with a notable exception being daminozide products B-Nine and Dazide) but are especially popular with products that contain paclobutrazol (Bonzi, Piccolo, etc.) or flurprimidol (Topflor). These active ingredients are effective as sprays and drenches, so naturally they are also useful as sprechches. Sprechches are commonly used on aggressive bedding plants and are

typically applied once every one to two weeks.

A number of factors should be considered when selecting an appropriate PGR rate, including the vigor of the plant, application timing, magnitude of response desired, and environmental factors. For plants with moderate vigor, starting rate ranges for sprechches in the northern United States are 3 to 6 ppm of paclobutrazol. Lower sprech rates (1 to 2 ppm) are recommended for flurprimidol in the North while in the South, a starting range of 2 to 4 ppm is suggested. Uniconazole (Concise and Sumagic) is also effective when applied as a sprech,


and starting rates are similar to those for flurprimidol.

Why do sprech applications seem to be gaining in popularity? There are several reasons:

- The period of PGR efficacy of a sprech is longer than a spray but not as long as a drench. This intermediate period of control doesn't require as many applications as sprays while it also enables growers to "read" the crop intermittently to determine if and when another PGR application is needed.

- Late PGR applications have the potential to delay flowering and reduce flower size. This is especially true with spray applications at high rates. When sprechches are used, the rates are lower than those used for sprays and thus, the concern of having a negative effect on flowering is reduced (but not eliminated).

- Drenches often have a persistent effect, which can be desirable (such as with hanging baskets) or undesirable (for flats almost ready to ship). A late drench applied to flats, especially at a rate meant to stop the crop, can continue to inhibit growth after plants are transplanted by the consumer into the landscape. Since sprechches don't saturate the growing media, their potential to have a negative carry-over effect is less than drenches.

For aggressive bedding plants, the best sprech outcomes are usually obtained when the first application is made soon after the roots have grown to the pot edges, or about seven to 10 days after transplant. The best PGR results occur when applications are made proactively. In contrast, reactive applications are those in which PGRs are applied after plants have already started to become too large. A reactive application usually requires a higher PGR rate and/or volume, which increases the potential for a flowering delay or an overly-persistent response. As with any new PGR product or application method, it's important to conduct your own small-scale trials to determine appropriate rates for your crops and growing conditions. Also, don't forget to read and follow instructions on the PGR labels. 

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