

## PLANT GROWTH REGULATORS—TARGET SPRAY VOLUMES

When you apply PGRs as a foliar spray, how much are you *actually* supposed to apply? Many of you have likely heard the terms, “spray to runoff,” or “spray to *glisten*,” and have a general idea of what that should to look like. The reality is ... those are very subjective spray indicators and don’t lend to precisions or repeatability.

We would argue that consistency is more important than total effect when it comes to PGR applications, so keep the following in mind when you’re about to make a foliar spray application of any PGR:

- Target a ½ gallon (2 quarts) of spray solution per 100 sq ft of bench space.
- When you read different PGR labels, you will see this volume written in the spray application instructions of every product. This spray volume is not just indicated for legal reasons – it’s there to help ensure that you achieve consistent results whenever you apply that product to control crop growth!

If you aren’t sure what a ½ gallon/100 sq ft with a backpack- or hydraulic sprayer looks like:

- Measure out a 100 sq ft area of bench/floor and tape it off in a neat rectangle.
- Fill up a sprayer with a ½ gallon of clear water and practice spraying over the taped-off growing surface.
- Maintain a slight overlap per pass with your spray pattern so you don’t have dry “stripes” and adjust arm movement speed so that you spray the entire ½ gallon without having to go back over the same area more than once.
- To stay consistent, count out loud as you track arm movement speed per pass (one one-thousand, two one-thousand, three one-thousand...) and maintain the same arm speed for the entire ½ gallon before you adjust it up or down.

Repeat this process until you can apply the full volume in a single run. If you want to improve your precision per pass, put down some sheets of water-sensitive paper (turns blue when water hits it) on the growing surface and compare the depth of color on the indicator paper from the start of a single pass to the end.

While you can (roughly) calculate speed and number of passes needed to achieve a ½ gallon/100 sq ft via a manual spray application, there is no real substitute for this process. Sprayer pressure, tip/nozzle size, the state of your sprayer’s seals and diaphragms, and human error will all impact the timing needed to achieve a ½ gallon/100 sq ft. Take the time to dial-in this spray volume precisely – you won’t regret it! The more consistently you can apply PGRs, the more predictable the outcome will be. Consistency and predictability will give you confidence to use these tools to maximize crop quality year over year.