

The Use of Offshore-Produced Unrooted Cuttings at North Creek Nurseries®

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INTRODUCTION

- North Creek Nurseries began buying unrooted cuttings (URC) about 5 years ago (2001).
- We currently purchase about 500,000 annually from all the major perennial URC producers, Yoder, Florexpo (McGregor), and Maya Crops (Foremostco).
- North Creek grows over 400 different taxa of perennials. We purchase about 70 taxa as unrooted cuttings. Some of the genera we purchase are: *Achillea*, *Agastache*, *Aster*, *Coreopsis*, *Eupatorium*, *Gaura*, *Phlox*, *Salvia*, *Sedum*, and *Veronica*.
- Offshore-unrooted cuttings currently make up about 8% of our total yearly production.

HANDLING OF UNROOTED CUTTINGS AT NORTH CREEK

- Shipments of unrooted cuttings typically arrive on Wednesdays or Thursdays. The cuttings are wrapped in clear plastic bags that contain about 100 cuttings per bag. The bags are individually labeled with the item name. The bags are then packed in a cardboard box lined with Styrofoam. During the summer, cool packs are also packaged in the box to help preserve the cuttings. When a shipment arrives we immediately unpack the boxes in a cool, dry place (away from extreme heat or cold temperatures). We check for shipping damage or any signs of disease. Also, we pay close attention to the size of the cuttings. They should all be uniform in size and large enough to stick. We also look for flowers or flower buds because some taxa will not root well in this state. We report any issues to the suppliers within 24 h. Once the plants are inspected the cuttings should be stuck in a mist house as soon as possible. We recognize that some plants are more prone to “meltdown” than others, and we stick these first. Prior to sticking we immerse the cuttings in a solution of 1 ounce of Zerotel per 1 gal of water for about 5 min to kill any pathogenic microorganisms. The cuttings are then drained and immersed into a 500 ppm solution of K-IBA for about 1 min. Cuttings are then stuck into the appropriate size tray containing a media composed of peat, coir, perlite, and bark fines (12 : 3 : 2 : 3, by volume). Media pH is adjusted to 5.5, and we incorporate 1.25 lbs of Rootshield per yd³ for control of soil-borne diseases. We also add a small starter charge and wetting agent. Depending on the taxon and time of year the cuttings will root and, with one trim, finish in 6–10 weeks. We are often able to take a secondary cutting 4–5 weeks after the initial stick. Often times this serves as our initial trim.

BENEFITS OF USING UNROOTED CUTTINGS

- Increases our production capabilities by putting all of our manpower into sticking flats. We are able to produce 25% more per man-hour by not having to have a cutting crew supporting the stickers. One cutter is needed to support four stickers.
- Cuttings are generally clean and virus-free.
- Often plants have been virus indexed and arrive as clean stock.
- We are able to save space and heat by not having to carry, force, and light stock through the winter months.
- Allows us to produce some tender perennials without taking the risk or expense of overwintering stock.
- We use the initial block of cuttings purchased as nuclear stock, and we take additional cuttings from them to reduce our costs.
- Unrooted cuttings can be purchased at a lower cost than Stage III tissue culture liners.
- Allow us to spend more time producing plants that are more labor intensive such as divisions and root cuttings.

NEGATIVE IMPACT OF OFF-SHORE CUTTING PRODUCTION TO NORTH CREEK NURSERIES

- We now have to rely on someone else to supply us with true-to-name cuttings delivered in quantity and on time. Shortages and lack of availability have hurt us at times.
- We have had variety mixes shipped to us that we unknowingly pass on to our customers. This affects our credibility with our customers even though we have no control over the supply.
- Disease/pest issues (although very infrequent).
- Our customers are now able to by-pass us and produce their own plugs and not buy them from us.
- Many of our unique, nonproprietary introductions are becoming commodity items.
- Nonlicensed growers are able to pay a royalty up front and produce plants we were originally exclusively licensed to produce.
- Some proprietary plant licensors are trying to force us to pay the patent up front, resulting in administrative headaches and cash flow issues. The royalties are often double the cost of the actual cuttings, and we buy the bulk of these at the most cash-poor time of the year.

CONCLUSION

- As more plants are shipped off-shore there will a tendency to increase the use of URC.
- Off-shore URC are an economical alternative to holding and managing cutting stock
- The introduction and use of URC is making the marketplace much more competitive for propagation nurseries.