

## Propagating Hydrangeas Year-Round®

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### INTRODUCTION

*Hydrangea arborescens*, *H. macrophylla*, *H. paniculata*, *H. quercifolia*, and *H. serrata* are rooted at Zelenka Michigan Division as both hardwood and softwood cuttings. I will be sharing the timing and techniques used in this paper. We have two main focuses, one is to provide grade-spec liners that achieve or improve propagation yields. The other focus is to meet potting schedules for our container-grown program at different potting times throughout the year.

### CULTIVAR SELECTION

Our sales forecast drives the hydrangea species and cultivars that we produce. We currently are propagating 300,000 units annually, including the species and cultivars:

- *Hydrangea* ‘Preziosa’
- *Hydrangea arborescens* ‘Annabelle’
- *Hydrangea anomala* subsp. *petiolaris*
- *Hydrangea serrata* ‘Blue Bird’
- *Hydrangea macrophylla* ‘Mariesii Perfecta’ (syn. ‘Blue Wave’)
- *Hydrangea macrophylla* ‘Black Stem’
- *Hydrangea macrophylla* ‘Nikko Blue’
- *Hydrangea macrophylla* ‘Pia’
- *Hydrangea macrophylla* ‘Pink Beauty’
- *Hydrangea macrophylla* ‘Glowing Embers’
- *Hydrangea macrophylla* ‘Mariesii Lilacina’
- *Hydrangea macrophylla* ‘Aureovariegata’ (syn. ‘Variegata’)
- *Hydrangea paniculata* ‘Grandiflora’
- *Hydrangea quercifolia*
- *Hydrangea quercifolia* ‘PeeWee’
- *Hydrangea quercifolia* ‘Alice’

### PROPAGATION REVIEW

Our greenhouses are equipped with raised benches, intermittent mist systems, bottom heat, fans for cooling, and covered with 3-year poly. Our propagation polyhouses are equipped with intermittent mist systems, natural gas heaters, shade tarps and venting for cooling, and covered with 1-year inflated poly.

### PROPAGATION

**Medium and Nutrition.** Propagation medium is southern pine bark (aged for 1 year and screened to  $\frac{3}{8}$  to  $\frac{1}{2}$  inches) and horticultural perlite (7 : 3, v/v).

**Propagation Tray.** The trays used are 18- and 21-cell trays. The 18-cell tray is 4 inches  $\times$  4 inches with a 3  $\times$  6 pattern. The 21-cell tray is 3 inches  $\times$  3 $\frac{1}{2}$  inches with a 3  $\times$  7 pattern. The manufacture is the Landmark Company.

**Hormone.** Woods liquid rooting hormone with active ingredients of indole-3-butyric acid (1.03%) and naphthalene acetic acid (0.66%) is used at 1 part hormone to 20 parts water for both hardwood and softwood. The cuttings are dipped for 3 to 5 sec.

**Availability of Cuttings.** Cuttings are taken from dedicated stock and from production plants in the nursery.

**Method of Propagation.**

**Softwood Cuttings.** These are taken from current seasons growth, 4 to 6 inches long with three nodes. Cuttings are taken, made, and bundled into groups of 25 in the field. Bundles are placed into blueberry lugs, when lugs are full they are transferred in a refrigerated truck. Several times per day, cuttings are transported to the greenhouse and stored in a cooler. Cuttings are misted and cooler temperature is maintained between 36 and 38°F. At sticking time, cuttings are removed from the cooler and a fresh cut is made. Cuttings are dipped into hormone and placed back into a blueberry lug. The cuttings are brought to a sticking crew and are stuck one per cell.

**Hardwood Cuttings.** Hardwood cuttings are taken in much the same manner. Cuttings 6 to 8 inch with 3 to 4 nodes are cut, made, and bundled into groups of 25. Cuttings are taken to a cooler in blueberry lugs and stored at 36 to 38°F. Cuttings are removed from the cooler, a fresh cut is made, and then they are dipped in rooting hormone. We do stick multiple cuttings per cell—two per 21-cell and three per 18-cell tray.

It is very important to use protective fungicides to minimize disease in the wet, humid conditions under mist. We have found that applications of Terrachlor-75 W.P. within 2 days after sticking reduces disease problems. Other fungicides are used on a 21-day schedule. They include a rotation of Cleary 3336, BannerMax, Terrazole, and Chipco.

**RESULTS AND DISCUSSION**

Our sales forecast drives our propagation schedule with demands at many different time frames. To accomplish those demands we have stretched our softwood production from April through September, and our hardwood production from November through March. This has allowed us to provide finished cell liners for our facilities in Michigan, North Carolina, Tennessee, and Louisiana. This program has allowed us maximum use of our facility and fulfills the demands of our sales needs.