

Top Tips for Seed and Vegetative Propagation

compiled by Shirley Priest

Nine of us attended the Plant Propagation from A-Z clinic in Athens on January 27. Dr Paul Thomas and Bodie Pennisi were keynote leaders of the hands-on workshop, and the Georgia Flower Association provided speakers who gave useful information for both home and commercial gardeners. Here are a few tips we wanted to share:

Tips for Seed Propagation:

- Seeds lose ½ their storage life for every 1 % increase in seed moisture. **Keep seeds dry.**
- The **life expectancy** of seeds varies. Sugar maple seeds live two weeks. Sensitive Plant seeds live 200 years.
- When sowing very tiny seeds, such as begonia, orchid, or poppy seeds, put an inch of seeds in a vial and fill the rest with dry sand to aid in sowing.
- When planting perennial seeds, we must **research** their requirements for germination to occur. Questions to ask are: Do I smash, roll, pulverize, soak, scarify, or stratify before planting? How deeply do I plant and when?
- *Provenance*, a term used to describe the origination site of seeds, in terms of climate and geographic location, has a **profound effect** upon seed germination and plant survival.
- Water, that makes its way into the seed, causes a **chain of chemical reactions**. Embryonic development, emergence from the seed coat, production of hormones, and stimulation of the synthesis of various enzymes are only the start of this chemical process.

Tips for Vegetative Propagation

- The **easiest way** to propagate plants is through plant division. Get some roots, and you're good to go. Also, you will get a true replica of the plant that way.
- When taking cuttings make a slanting cut below the leaf node. **Wound by scraping** the lower half inch of the stem to expose the cambial layer. Remove bottom leaves before planting.
- Always **dibble a hole** when planting the cutting, as opposed to just poking it in a hole, *gently* moving soil around the plant.
- Adventitious roots are encouraged by using rooting hormones. Always shake off excess hormone from the cutting. **Too much root hormone is worse than none at all!**
- **Winter** is a good time to root most evergreens, and this is convenient since garden chores are at a minimum.

- There is an **optimal time** for propagation of most plants. For example, complete cuttings of phlox by July and native azalea cuttings by the end of May.
- Each plant has a **best way** of propagation. Books to use include: The Reference Manual of Woody Plant Propagation: From Seed to Tissue Culture: A Practical working Guide to the Propagation of over 1100 Species, Va by Michael A. Dirr and Charles W. Heuser and American Horticultural Society Plant Propagation: The Fully Illustrated Plant-by-Plant Manual of Practical Techniques by the American Horticulture Society (Peter Anderson and Alan Toogood).
- Cleanliness of tools and soil, water, and even the time of day of cuttings and plantings are a few of the **environmental concerns** for successful plant propagation.

Steve Brady, Nancy Cash, Susan Dawsey, Alice DeSantis, Midge Domer, Phyllis Goff, Sharon Parry, Diana Silvestri, Mardy Wooden and I came home just loaded with seeds and rooted cuttings in several trays. Yes, we enjoyed the great gifts from the workshop and a great Italian restaurant (De Palma's on Broad) while there, but most importantly, we enjoyed learning together with gardening friends.