

A FEW THINGS TO REMEMBER ABOUT OUR AFTERNOON TOGETHER

(Just the very basics)

Seed Sowing

REMEMBER-With ALL seeds the fresher they are, the better results.

Three sizes Small Medium & Large.

S- With very small and dust-like seeds fill the seed pot with your basic soil mix, tamp it down for a smooth flat surface and lay down a thin layer of grit. Drop the seeds onto the surface and let them fall between the cracks in the grit.

M-With medium sized seeds prepare soil as above without the grit sow the seeds on the surface and cover the seeds with a fine layer of soil equal to the thickness of the seeds. Then cover with a fine layer of grit.

L-With large sized seeds prepare soil as above without the grit make a hole in the soil and plant the seed to a depth that brings the top of the seed flush with the top of the soil. Cover with a dust-like layer of soil and then cover with grit.

I prefer Granite Grit as it is inert and does not alter the pH. The Grower Size is perfect and you can get it at any good farm supply store.

The grit has several purposes besides looking cool on the surface of the pots. It will discourage slugs and snails from traveling across the surface and dining on your tender yummy young seedlings and it also somewhat prevents the growth of mosses and liverworts which can smother young sprouts.

Put all of your seed pots outside and let Mother Nature work her magic. Some seeds have immature embryos and need a warm period followed by a cold period and then another warm period to germinate. Others require oscillating temperatures to germinate. Some require a more complex warm-cold-warm-cold cycle. Be patient Remember A watched pot never boils but.... if you have a lot of pots there's always something happening.

Stem Cuttings

Many plants such as Asters, Campanulas, Clematis and English Ivy's can be propagated from cuttings. There are basically two types of plants in this category nodal rooters and inter-nodal rooters. The node of the plant is the point at which the leaves are attached and usually contains dormant buds and totipotent cells capable of generating roots.

Nodal rooters will root only at the nodes while plants like English Ivy will root anywhere along the stem. Just to be safe its always best to have at least one node under the soil.

Most cuttings benefit from the addition of a rooting stimulant to hasten the process of rooting. These hormonal chemicals mimic the natural hormones produced in a plant when it is injured and natural protective measures are called into play to perpetuate the species.

I use a liquid hormone like Dip and Grow at a medium dilution for most herbaceous perennial plants.

Powders such as Root Boost, formerly Rootone, are used when there is an alcohol sensitivity in a particular plant as the liquid hormones have alcohol and formaldehyde as carriers.

As much excess leaf material should be removed as this will transpire moisture from the plant cells that cannot be replaced since there are no roots yet for water uptake. Most material needs to be misted a few times a day or covered with a dome that can be made from a one liter soda bottle and placed in the shade. Cuttings will usually develop roots in a few weeks, some sooner some longer. Best time to take cuttings is before flowering and when the stem is firm enough to snap.

Rhizome Division

Several types of rhizomatus plants such as Trillium, Sanguinaria, Chamaelirium etc grow from a finger like appendage that is really an underground stem. These rhizomes have dormant buds all along them.

In nature when one of these rhizomes is broken or damaged they respond by making the next dormant bud in line dominant. We can cut a rhizome into pieces as small as one half inch but the larger they are and the earlier in the year it is the better.

Even though there are no roots on the segments cut there is enough starches and

carbohydrates to feed it until roots and shoots develop. Small plants that develop can be potted up and set out the following year. This is a great alternative to seed sowing as Trilliums produced by this method usually flower in their third year compared to five to eight from seed.

Root Cuttings

One of the easiest way to get a large quantity of a particular plant is by root cutting. Not all plants can be propagated this way but many of the most popular garden plants such as *Phlox paniculata*, *Papaver orientale* most Boraginaceae, Acanthaceae "Japanese Anemones" and many others can be.

The most important thing to remember about root cuttings is the polarity. This refers to the direction that the root was growing from the plant. If you plant a root upside down it will not generate a new plant. Most plants are best propagated via this method in the Winter and brought into a warm area. Flowering sized plants are usually produced by the following Summer.

Simple Division

Many plants such as Heucheras benefit greatly from being lifted and divided every couple, three years. I like to use a stout, four prong digging fork as this will be gentler on the roots and easier to use than a shovel. Early Spring is the best time for this method as your new divisions will have plenty of time to settle in and make a good enough root system to anchor them firmly in the ground. This will prevent heaving out due to freezing and thawing.

I hose off all of the soil so that I can get a good idea of where to make my cuts. DO NOT let the roots dry out and work in the shade by all means. Keep the ground saturated with an anti-shock B-1 Vitamin formula on your first three watering's and then with water until plants are completely turgid.

Layering

Don't prune those branches off bury them! Soil layering is very useful when you are working with a woody tree or shrub that has low lying branches. Make a cut 3/4 of the way through the branch dust with a rooting hormone put a wooden wedge in the cut so that it doesn't heal back over and bury the cut in a mound of soil or even in a pot.

Air Layering

Air layering is another great way to get a lot of blooming size woody trees and shrubs

quickly and inexpensively. Air layering is similar to soil layering described above except that the cut is well above the ground and layering it into the soil is impossible. In this method place the wedged open cut into a handful of moist long fibred sphagnum moss wrap a plastic bag around the moss to keep moisture in. Tie off both ends with cut open rubber bands. Place a piece of aluminum foil around it to prevent light from hitting and from the sun and heat. Peek in occasionally and when you see a mass of roots cut off your new plant just below where you made your cut.

Tissue Culture

Tissue Culture simply put is the science of growing plants in a sterile environment without the competition of bacteria, fungi, viruses, microbes etc that would inhibit the growth and multiplication of plants In Vivo. Tissue Cultured plants are given the perfect food balance, perfect vitamin balance, hormones and exact temperature, humidity and light requirements for optimum growth. They are very delicate and must be hardened off gradually before potting and their eventual sale.

Bibliography

There are many current and out of print books available on Plant Propagation. Possibly the best book available for home gardeners and perhaps even nurserymen is the Timber Press Book: Creative Propagation by Peter Thompson ISBN 0-88192-251-X 220 Pages 6 X 9 Paperback

It covers all plants from bulbs to annuals perennials and trees. This popular book stresses the need to understand how plants behave in the wild and how to create favorable conditions for reproduction.

MY ADVICE

I encourage you to experiment, as this is the most exciting way to learn. Don't be discouraged by your failures and please share your successes and discoveries with your friends and fellow gardeners.

THANKS FOR BEING HERE AND TAKING AN INTEREST IN PLANT PROPAGATION

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