

MY METHOD OF PROPAGATING GROUND COVERS

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This wholesale nursery is composed of 10 acres of land on which we have coldframe-hotbed combinations. We have our stock-blocks to furnish wood for evergreen and deciduous liners in addition to ground covers. Propagating beds are mostly 6 ft by 15 ft, covered with 3 ft by 6 ft hotbed sash. Frames are made from 2 inch by 12 inch by 16 ft pressurized-treated lumber. Frames are set about 6 inches in the ground, sloping to the south, and carved out beyond 6 inches to an average total depth of 18 in. To this we add 6 or 7 in. of coarse sand and 6 cubic ft of peat the first year we use the bed. We add 3 cubic ft of peat each year thereafter.

This nursery was first certified by the state in 1934. At that time I didn't see anything like a mist system around. We watered with a 3- or 4-inch sprinkler heads on a regular hose and still do. A mist system is not appropriate as the beds would soon have too much water. Since our frames are partly in the ground there is no way for the water to drain.

Since our physical set-up is so different from the mist system, we rarely get any practical help suggestions on propagating from other nurserymen or find professional books on this subject. Our methods have been mostly "trial and error." Naturally we have had to do quite a bit of experimenting with such factors as when the wood is ready, how much watering is needed, and how much heat a cutting can take in closed beds

We propagate only 3 cultivars of ground covers. I will discuss these one by one as each is very different from the others in its propagation requirements.

Ajuga. Our ajuga is grown in the field. In the fall we dig clumps, divide into individual plants, dip in a fungicide if need be and simply set these out in a newly rotated area to grow for the next season. Our ajuga mostly grows in open field rows. We set some in the stock blocks under larger plants, such as *Ilex cornuta* 'Burfordii' and *Ilex cornuta* 'Rotunda'. We find the partial shade helps out quite a bit in hot and dry weather. Plants do well in this partial shade. I may add, the ones grown in rows are cultivated. To date we have found no completely satisfactory herbicide, however, Treflan (trifluralin, Elanco) looks promising.

English ivy. We have a permanent English ivy stock block that produces all the wood we use for cuttings. this stock block is well cared for to be sure we have a good supply of strong

cuttings. This block is kept about 90% free of grass and weeds by use of a granular herbicide applied sometime in the early spring and again in the early fall as needed. This stock block is not cultivated. We go through it with a hoe to get any weeds that may escape the herbicide. We spray for possible fungus and insects as needed. The block is fertilized in early spring and again in early summer in order to keep up a growth of wood.

The propagators cut a few ivy vines and take to the inside work benches. These vines are dipped in a tub of water that may or may not have fungicide in it. They are cut into 5- to 7-inch pieces, the lower 2 or 3 leaves stripped and the base end of the stem dipped into a #2 Hormodin (0.3% IBA, Merck). This leaves 2 or 3 leaves to help produce a nicely-rooted plant.

Now the cuttings are stuck into a cut trench made with a common 6-inch-trowel blade and a hardwood stick as a guide. Cuttings are placed in approximately 2-inch rows, the sand packed thoroughly, cuttings watered well, and the bed covered with shaded sash.

These beds are kept closed until the cuttings begin to root. They are kept well-watered the first 2 or 3 times and thereafter misted or syringed 2 to 4 times a day, all depending on outside temperature and moisture. If it is a rainy day, we may water less. This is judged by whether water from previous waterings is still quite noticeable on the foliage.

Our ivy propagation is done mostly in October, November, and December. As it grows cooler at night, we gradually drop watering from 3 to 4 times a day to 2 times a day. As roots appear, we reduce watering to 2 times a day and then to one time. After roots are well formed we start ventilation and gradually reduce watering from once a day to every several days.

Some years in the past we started ivy propagation in August. We got poor results; we were only getting 20 to 25% rooted plants. We decided maybe our type of beds got too hot at that season for several cultivars of plants and maybe ivy was one of these.

We decided maybe it got too hot in closed beds, so we started ventilating a bit to let out the extremely hot air as soon as we set out a bed. We used the same watering procedure as discussed earlier. As roots started to appear we gave a little more ventilation. This resulted in a 50% plant survival.

The above experiment led us to change our propagating to October, November, and December. We water as explained but do not ventilate. Our present results of nicely rooted plants now stands around 90%.

Euonymus 'Colorata'. The third and last ground cover we

propagate is *Euonymus fortunei* 'Colorata'. We find this plant does well in the open, sunny places as well as partial shaded places.

Our stock block is composed of several long rows out in the sun. Instead of cultivating we use granular herbicide applied once or twice a year. We also use systemic granular chemicals for scale at least twice during the growing season. We find scale is the #1 enemy of most all euonymus but especially *E. 'Colorata'*.

Our stock block is cut over systematically several times a year. After each heavy cutting we apply a granular fertilizer on the surface. In dry weather we turn the irrigation on to help get the fertilizer to the roots quicker. All fertilizing is done from early spring through late summer.

We start making cuttings from new and tender wood about late April or early May. For the first several weeks we pull these cuttings off by hand. When they get tougher, we cut them off for the rest of the season.

The cuttings are dipped in plain water unless we see signs of insects or fungus. Then we apply chemicals. The wood is then brought to the work bench and cut in desired lengths. The lower two inches are stripped of foliage and dipped in #2 Hormodin (0.3% IBA)

These cuttings are set about an inch into the medium in rows 2 inches apart. They are watered quite well 2 or 3 times the first 1 or 2 days, then syringed 2 to 4 times a day thereafter until rooting starts. Two or 3 weeks are required in the spring and summer for rooting but longer in the fall.

As a rule watering is cut to twice a day after the first 10 to 14 days. As roots start nicely, we cut watering to once a day and start ventilation on a small scale, increasing it every 5 to 7 days by degrees. In 6 or 8 weeks these rooted plants are ready for potting or planting on the job.

Our results in rooting tender or some hardier plants are approximately the same — one just takes a bit longer. We propagate *Euonymus fortunei* 'Colorata' the whole year (12 months). Our rooting percentage is usually good, about 90%, all the time if cuttings are properly set out.

SOURCES OF INFORMATION

We have been experimenting and propagating plants since the early 1930's. The reference I found then and for some years to come was Fritz Bahr's *Commercial Floriculture*.

The past decade or so I found helpful ideas from *Plant Propagation, Principles and Practices*, all editions, by Hudson T.

Hartmann and Dale E. Kester. Also, *Plant Propagation Practices* by James S. Wells. As stated before, I seem to get no direct instructions from any of these authors or from other books I have read. However, they are a big help because they helped create practices we do use.

Locally, over the early years I got some most valuable suggestions and help from successful propagators such as Chase Nursery Company, Byers Nursery Company, Huntsville Wholesale Nursery, and Rodenhauser Florist.

REFERENCES

- 1 Hartmann, Hudson T and Dale E Kester 1975 *Plant Propagation Principles and Practices* 3rd ed Englewood Cliffs, New Jersey Prentice-Hall
- 2 Wells, James S 1955 *Plant Propagation Practices* New York The Macmillan Co

GROWING TREES FOR INTERIOR USE

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Interior trees can be defined as tropical or semitropical plants with evergreen foliage, woody, predominantly upright stems which are approximately three feet or more in length. Most interior trees have prominent branching structure including plants with single stems, branched trunks or multiple stems from the base and are well adapted to the light level, humidity and temperature regimes inside buildings maintained for human comfort. Several unique aspects of producing interior trees are discussed in this paper. Cultural practices are those commonly used by Florida nurserymen in southern and central regions of the state. Nurseries located in Dade, Palm Beach, and Broward counties, the southeastern region Florida, account for most of the interior tree production, with limited production in southwest and central Florida.

Interior tree production on a massive commercial scale is a relatively new industry when contrasted to the landscape tree business. Most interior tree nurseries in Florida have developed within the last twelve years, making it one of the fastest growing segments of commercial horticulture. Present rate of expansion is much less than recorded during the early 1970's.

Just as landscape plants must be evaluated for adaptability to