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AIR LAYERING

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Air layering is a method of propagating plants that is used to some extent commercially for propagating some species yet is extremely simple and can be successfully employed by the amateur. The method is simple since conditions are provided for roots to form while the part to become the "new plant" is still attached to the "mother plant".

Bailey, writing in "The Nursery Manual" published in 1898, defined a layer as a "shoot or root, attached to the parent plant, partially or wholly covered with earth, with the intention that it take root and then be severed from the parent." Air layering is a specific type of layering. Besides being a method of propagation, air layering can be used to "shorten" overly tall or spindly plants which have become unattractive because of the loss of lower leaves. All that is required for air layering is sphagnum or peat moss or similar material, a water-proof wrapping material, electrician's tape or some string or fine wire, and a "mother plant".

Selection of shoots to be air layered is important. It is practically useless to propagate plants which are diseased or have been damaged by insects. Straight, clean stems should be selected. Complete or partial girdling by removing the bark or wounding will usually induce quicker rooting of woody plants. The movement of food downward is stopped at the girdle, thus encouraging root formation. Water can still move upward into the shoot to keep the leaves turgid.

After complete or partial girdling, one of the commercial rooting powders can be lightly dusted on the cut area. It is not necessary to use rooting substances, but earlier rooting often results if they are used. It is not necessary to girdle herbaceous plants such as monstera, philodendrons, chrysanthemums, etc.

Moist sphagnum moss is best to use for air layering only because it is fibrous and easy to apply to the stem and hold in place while tying. Peat moss or other similar material can be used, although sphagnum moss is superior for the reason mentioned. Whatever is used, excess water should be squeezed out with the fingers before wrapping in place. One "handful" of moss placed over the girdled area is usually sufficient.

One of the best materials to use to wrap or cover the sphagnum moss is polyethylene. This is a plastic material and it is used widely for prepackaging fresh vegetables in bags. Water does not penetrate polyethylene although it allows free diffusion of oxygen and carbon dioxide.

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After wrapping, the polyethylene should be firmly secured above and below the mossed area with electrician's tape. A fairly tight seal is necessary to prevent evaporation of water as well as leakage of water into the sphagnum during rains. If excess water accumulates, rooting will not take place.

In brief, the following steps should be followed to induce rooting:

1. Select clean shoots
2. Remove bark or wound where roots are desired
3. Treat with rooting powder if desired
4. Put moist sphagnum around girdle
5. Wrap with polyethylene
6. Bind securely above and below wrap.

The length of time required for roots to form will vary with the plant. Roses often form roots in four weeks. Viburnums and magnolias often require most of the growing season. In general, woody plants should be layered in the early spring so that roots will form and the new plants can be separated and planted before winter.

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