

Propagation of woody stem cuttings narrow-leaved evergreens

This lab will familiarize students with special cutting types associated with narrow-leaved evergreens, demonstrate proper procedures for narrow-leaved evergreen stem cutting preparation, and the laboratory exercise will evaluate the effects of cutting type on the propagation of narrow-leaved evergreen cuttings.

This type of cutting will need to be prepared from mature wood. The material should also be dormant and firm. These cuttings are generally collected at the beginning of the dormant season. Many of these species require the presence of older wood for rooting success.

- Straight cutting - Does not include older wood
- Heel cutting - Includes only a small piece of older wood
- Mallet cutting - Includes a short stem section of older wood

This type of cutting is usually best rooted in a propagation structure with high irradiance, high humidity, and very light misting. Bottom heat of 75 to 80 F have given good results. Removal of the lower leaves or branches is common and acts to serve as a form of light wounding.

General methods for the laboratory exercise:

1. Prepare substrate in cell pack flats
2. Take cuttings representing each of the narrow-leaved evergreen cutting types from a plant chosen by your lab instructor.
3. After treatment with an auxin, stick cuttings in cell pack flats by treatment.
4. Label flats accordingly and place on benches under mist.

You may also wish to propagate the same number of cuttings without the use of an auxin. Group the cuttings according to the cutting type.

After several weeks, evaluate the rooting percentage, root number and, root length for each cutting type.