Plant Propagation Lab Exercise Module 3



PROPAGATION OF WOODY STEM CUTTINGS

An introduction to plant propagation laboratory exercises by: Kathryn Campbell, Brett Williams, and Dr. Mack Thetford



WOODY STEM CUTTINGS







DormantGreenwood (Willow) (Willow)

Softwood (Oak)



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PROPAGATING WOODY STEM CUTTINGS Effects of Wounding

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LAB OBJECTIVES

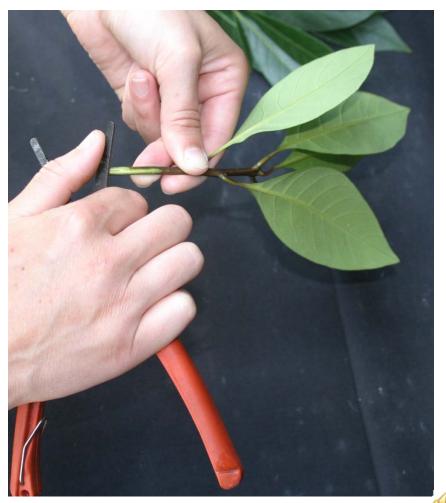
- Familiarize students with reasons for wounding and degrees of wounding
- Demonstrate proper procedures for wounding stem cuttings
- Evaluate the effects of heavy wounding and rooting hormone on the propagation of woody cuttings



FACTORS IN WOUNDING

1. Physiological

2. Mechanical





DEGREE OF WOUNDING



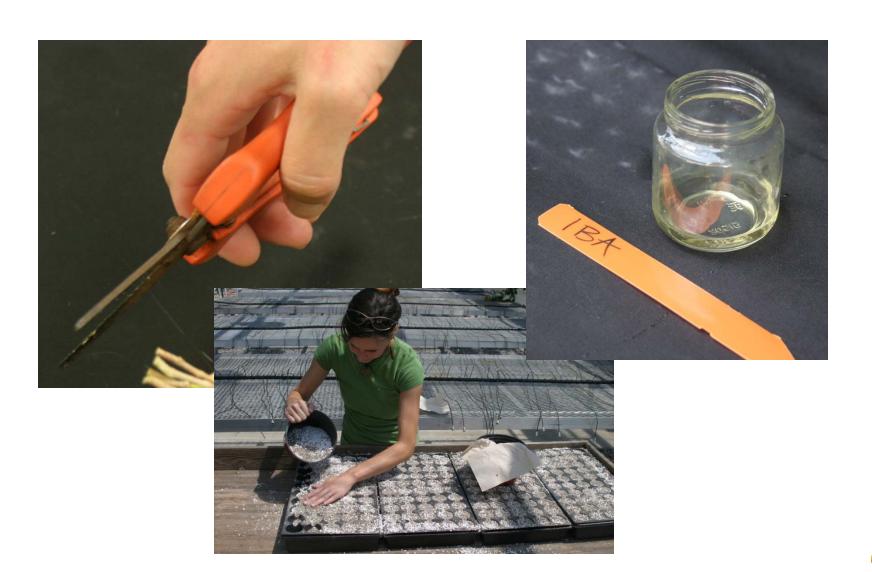
Light Wounding



Heavy Wounding



MATERIALS





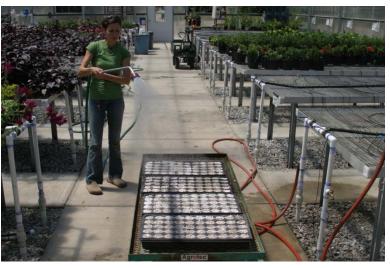
METHODOLOGY

- 1. Prepare substrate in cell pack flats
- Take 24 cuttings of each woody shrub or tree chosen by your lab instructor
- Subject six cuttings of each species to each of the four wounding/hormone treatment combinations
- 4. Stick cuttings in cell pack flats by treatment
- Label flats accordingly and place on benches under mist



PREPARATION







- 1. Prepare propagation flats
- 2. Water substrate well before sticking cuttings
- 3. Collect cuttings





Treatment 1. HEAVY WOUNDING



Treatment 2.

ROOTING
HORMONE
(no wounding)





Treatment 3.

HEAVY WOUNDING and ROOTING HORMONE











Treatment 4.

CONTROL

No auxin or wounding



RESULTS AND DISCUSSION



