

# 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



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





# PREPARATION



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



# TREATMENTS



**Treatment 1. HEAVY WOUNDING**



# TREATMENTS

**Treatment 2.**

**ROOTING  
HORMONE  
(no wounding)**





# TREATMENTS

**Treatment 3.**

**HEAVY WOUNDING  
and  
ROOTING HORMONE**





# TREATMENTS



**Treatment 4.**

**CONTROL**

**No auxin or wounding**



# RESULTS AND DISCUSSION

