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We operate a Douglas fir tree farm and develop forestland properties in Washington State. We grow trees on extended rotation. We help young people discover tree farming through a summer fellowship program and internships.

## 2015 Tree Fever Volunteer Research Internship: Biometrics

Offered to Grays Harbor College (GHC) students, Natural Resources—Forestry Technician Program

**Location:** Tree Fever Farm, 1509 Satsop Road West, 25 miles from GHC.

**Time commitment:** 50 h. The preferred schedule (negotiable) consists of 8 consecutive days in July; 6.25 h per day: 1 h of driving, 4 h of work on the research plantation, and 1.25 h of computer homework (imputing data).

**Requirements:** This internship is offered only to students who have successfully completed the Pest Damage internship at Tree Fever. A student must have transportation and nightly access to a personal computer that would allow him/her to input the data collected into an Excel spreadsheet, print the Excel file, and also e-mail the file to Tree Fever before the next morning.

**Compensation:** None. Mileage reimbursement (standard rate, up to 50 miles per day for each day with at least 4 h of work on the plantation) is offered.

**Supervision and credits:** The work will be supervised by Dr. Andrej Romanovsky, Tree Fever Partner (Forestry and Research), and/or Mr. Dave Houk, Grays Harbor Conservation District Service Forester. Academic credit eligibility should be discussed with Mr. Todd Bates, GHC Forestry Instructor.



**Plantation:** The work will be performed on a 7-ac western redcedar (WRC) plantation established in March of 2015. In this plantation, WRC seedlings were protected from animal damage in three modes: 1) by a Vexar tube attached to a bamboo stake (traditional mode; marked with yellow flags); 2) by co-planting (in the same hole) a WRC seedling with a Sitka spruce seedling (experimental mode; blue flags; see the photo below); or 3) by having no protection at all (control; red flags). All three modes were intermixed through the plantation. The plantation was established with partial support by grant FW14-007 from Western Sustainable Agriculture Research and Education (WSARE).

**Work:** The major goal of this project is to determine whether co-planting with Sitka protects WRC seedlings from browsing by wildlife. The secondary goal is to determine the effect of each protection mode on the growth of non-damaged and damaged WRC trees. For example, the growth pattern of damaged trees often changes, and both Vexar tubes and co-planted Sitka trees can be expected to slow the growth of WRC trees. To address this secondary goal, the students will collect the tree height and trunk diameter data for selected damaged and non-damaged WRC seedlings. Interestingly, changes in certain biometric indices (e.g., an increase in the trunk diameter to height ratio) agree with certain types of tree damage due to browsing. Some time during the first working day will be spent discussing the project and relevant biometrics issues, as well as practicing measurement techniques. The students will be asked to input the collected data into Excel spreadsheets at home.



Increasing forestland value through active forest management and conservation