

M E M O R A N D U M

To: Rangeland & Riparian Habitat Assessment Consultants
From: Karen Launchbaugh, Quality Control Chief
Subject: Assessment Due Friday, September 19, 2008
Date: September 14, 2008

As you know, we are conducting vegetation assessments in the Pacific Northwest. In the coming weeks, I will be asking for data and reports regarding ongoing assessments. The first project to come due is to determine a reasonable number of plots to clip in an assessment of above-ground grassland biomass. We will determine if we clipped enough plots to assess upland and lowlands sites we visited in Price Valley, Idaho. The purpose of this memo is to outline activities and deliverables that I expect from this assessment.

First, obtain a copy of biomass data from all teams taken at the Price Valley grassland sites. Look on the class webpage (www.cnr.uidaho.edu/range357) under "Assignments" to download an excel spreadsheet of these data. Or, check your e-mail for an attached excel spreadsheet.

*** On Friday September 19 (by 5:00 p.m.) I need your completed excel spreadsheet with the requested items listed below. Send your spreadsheet to me by e-mail (4range@uidaho.edu). This first step will be worth 10 points.

- 1) What was the average weight of total grass biomass, in lbs/acre or kg/ha, on the Price Valley Uplands and the Price Valley Lowland sites?
- 2) Are the data normally distributed, or is it skewed (based on a frequency distribution plot)?
- 3) What is the variance, standard deviation, standard error, and 95% confidence intervals for total herbaceous biomass on each site?
- 4) Create a "running average" plot for estimating the proper sample size for estimating total biomass of this site. (See pg 20 in the Interagency Manual on "[sequential sampling](#)" or [more detail](#) on pg 141-155 from the Measuring & Monitoring book). Plot the mean and the standard deviation on the same graph.

*** On, Friday September 26 (by 5:00 p.m.), I will need a full report that includes:

- A general written description for the two sites including major site and vegetative characteristic.
- A clear statement of biomass in lbs/acre with some measure of variance (standard deviation or standard error) and a 95% confidence interval around the means for each site. Describe differences in grass biomass between sites.
- Also, calculate the appropriate sample size using 2 statistical methods. I suggest the Steins Two-Stage Technique, Bonham Approach, or Confidence Interval Approach. (These will be presented in class on Tuesday, Sept 23rd)
- Recommend an appropriate sample size for future investigations on both sites. Base your recommendation on the running means and the statistical methods.

For guidance on plotting running averages, consult the class web page. E-mail your final report to me. Please contact me if you have any questions (4range@uidaho.edu | 885-4394).