

Estimating Rangeland and Pastureland Biomass

Duration: 1 hour (depending on travel to site)

Group Size: up to 20 in groups of 2-3

Setting: Classroom and Field

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The purpose of this activity is to provide students with an opportunity to determine biomass produced on a specific rangeland site.

Goals:

Students will:

- Use a direct and indirect method to estimate biomass on a defined rangeland site.
- This activity is best conducted concurrently with the “Rangeland Site Description” activity

Materials:

- Handout “Estimating Rangeland Biomass”
- Student Reading: “Estimating Rangeland Biomass”
- Plot frame of known dimensions (usually less than $\frac{1}{2}$ m²)
- By-pass pruning shears or grass clippers
- Small paper bags
- markers
- Field scale or bench top lab scale (measures to 1-gram unit)
- 30 meter transect line (marked at each meter) and 2 stakes for the ends

Procedures:

- Have students work in groups of 2 or 3.
- Give students some guidelines on laying out a transect line.
- Students will follow the instructions in the student handout and data sheet to collect and record their field data.
- For further reference on vegetation sampling methods see the guidelines on sampling methods found on pages 112-115 of the Interagency publication titled “Sampling Vegetation Attributes” <http://www.blm.gov/nstc/library/pdf/samplveg.pdf>