Title: 723 How to measure plant production

<table>
<thead>
<tr>
<th>Type:</th>
<th>X Skill □ Knowledge</th>
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**Performance Objective:** Trainee will be able to…
- Estimate annual total plant production of forage species.

**Target Proficiency:**
- □ Awareness □ Understanding □ Perform with supervision
- X Apply independently □ Proficiency, can teach others

**Trainer Preparation:**
- Be familiar with the assigned reading and review material in the lesson plan that follows.

**Special Requirements:**
None

**Prerequisite Modules:**
None

**Notes:**
None

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**Approved by:**
Shawn McVey
The Five-Step OJT Cycle for Procedural Training (Skill)

- **Cycle Step 1**: Trainer/Trainee establish shared mental model
- **Cycle Step 2**: Trainer demonstrates task as Trainee observes
- **Cycle Step 3**: Trainer coaches as Trainee performs task
- **Cycle Step 4**: Trainer observes Trainee perform task and gives feedback
- **Cycle Step 5**: Trainer/Trainee debrief
OJT Module Lesson
Title: 723 How to measure plant production

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<tr>
<th>WHAT</th>
<th>WHY, WHEN, WHERE, HOW, SAFETY, QUALITY</th>
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| Cycle Step 1 | You and trainee review the objectives of the module.  
You and trainee read and review:  
- National Range and Pasture Handbook:  
  - Chapter 4 - Inventorying and Monitoring Grazing Lands Resources  
    - Methods of determining production and composition  
- Monitoring Manual for Grassland, Shrubland and Savannah Ecosystems, Volume II: Design, Supplementary Methods and Interpretation  
  - Plant Production (Section II: Supplementary Methods, Chapter 9)  
Note: An electronic copy of reference materials can be downloaded from numerous sites. |

| Cycle Step 2 | Note that vegetation sampling is an important activity of NRCS range management and pasture management specialists. The acquired data is used:  
1. to develop inventories for planning,  
2. to monitor ecological change,  
3. to assist in making management decisions,  
4. to develop rangeland ecological site descriptions,  
5. to help in development of hydrologic models,  
6. for studies of treatment effects, and  
7. for many other purposes. |

| Cycle Step 3 | Note that three methods are referenced for measuring annual plant production:  
1. Comparative yield (estimates by weight units)  
2. Double weight sampling (includes estimating and harvesting)  
3. Harvesting (uses clipping of plots and air drying of harvested material to obtain a measure of dry matter production)  
Coach trainee on when best to use each method. |

| Cycle Step 4 | Repeat Cycle Step 3 without coaching. Trainee can name methods of vegetation sampling and when best to use each method. |

| Cycle Step 5 | Provide feedback and debrief trainee. Reinforce specific items as needed until trainee is able to independently measure plant production. |
## OJT Module Lesson Measurement of Learning

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<tbody>
<tr>
<td>Trainee’s learning is measured.</td>
<td>During project activities, assign this task to the trainee. Sign off on performance when target proficiency is achieved.</td>
</tr>
<tr>
<td>Follow-up</td>
<td>Follow-up should be done within 6 months to make sure training is retained.</td>
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### Performance Report Form

Complete attachment: Trainee Performance Report Form template.pdf

or

**SF-182**

Trainee and/or supervisor access AgLearn to verify completion of the module via its SF-182