Lesson 5: Grassland Management Plan   Name _____

Determining Grassland Condition

Objective: To determine the condition of a grassland.

This activity sheet was designed for use by persons with different levels of technical ability. It can be used to <u>visually estimate</u> the condition of grassland quickly and without tools. It guides the user to evaluate 10 items important to grassland condition. With experience, condition surveys will be quite consistent between users.

Directions: Use this form to inventory up to five different fields or sites. Enter the grassland group for the site being evaluated. Acres can be the total acres in the field or the acres represented by the evaluation. The month and year should be recorded in the appropriate row. When it asks for a percent, the user should make his or her best visual estimate. After assigning a value for each category, total the values for the grassland and use the scale at the bottom of the table to rate the condition of the pasture. Where needed, use weighted values and interpolate. For example, if you cannot decide between a value of 2 or 3, use a value of 2.5.

<u>Category</u>:

1. Plant Population: Visually estimate the percent composition by weight of each plant grouping and assign a weighted value. What is considered desirable, intermediate, and undesirable will vary with the site, kind of grazing animal, and intended use.

2. Plant Diversity: Diversity is the number of different kinds of plants that are well represented on the site. If only one kind of plant occurs, diversity is narrow; if eight or more kinds are present, diversity is broad.

3. Plant Density: Ignore undesirables and visually estimate the density of living desirable and intermediate species that would be present in a 2-inch stubble. Is there room for more desirable and intermediate plants?

4. Plant Vigor: Are the desirable and intermediate species healthy and growing at their potential? Some things to look for are color, leaf area index, reproduction, presence of weeds, rate of growth and regrowth, etc.

5. Legumes in Stand: Visually estimate the percent composition by weight of the legumes in the stand for the area being evaluated.

6. Severity of Use: Close and frequent use causes loss of vigor, reduces desirable species, and promotes erosion and runoff. Light use allows excessive residue buildup, blocks sunlight, and reduces palatability and production.

7. Uniformity of Use: In uniform grazing, most plants are grazed to a moderate, uniform height throughout the field. Spot grazing appears uneven, with some plants or parts of the field grazed heavily and others lightly.

8. Soil Erosion: Visually observe and collectively evaluate all types of erosion and determine the severity for the area being surveyed.

9. Woody Canopy: Estimate the percent canopy (shaded area at noon) of woody cover over 6 feet tall.

10. Plant Residue: Appropriate residue provides adequate ground cover to retard runoff, improve water intake, return nutrients to the soil surface, and provide a favorable microclimate for biological activity.

1/4 Sec.	Tn.	Range	Field #:					
		Grassland Group:						
		Acres:						
		Month and Year:	M Y	M Y	M Y	M Y	M Y
CATEGORY		PARAMETER / VALUE	VALUE	VALUE	VALUE	VALUE	VALUE
1) **Plant Population:** The estimated percent by weight is mostly:		desirable 4					
		intermediate 3 2					
		undesirable 1 0					
2) **Plant Diversity:** The diversity of plant species is:		broad > 7 4					
		medium 4-5 3 2					
		narrow < 2 1 0					
3) **Plant Density:** Desirables and intermediates are:		dense >95% 4					
		medium 75-85% 3 2					
		sparse <65% 1 0					
4) **Plant Vigor:** Desirables and intermediates are:		strong 4					
		medium 3 2					
		weak 1 0					
5) **Legumes in Stand:** Percent of legumes by weight make up:		>40% 4					
		20-29% 30-39% 3 2					
		<10% 10-19% 1 0					
6) **Severity of Use:** The degree and frequency of use is:		light 0					
		moderate 2 4					
		heavy 2 0					
7) **Uniformity of Use:** The uniformity of grazing use is:		uniform 4					
		intermediate 3 2					
		spotty 1 0					
8) **Soil Erosion:** Sheet, rill, gully, and stream bank erosion are:		slight 4					
		moderate 3 2					
		severe 1 0					
9) **Woody Canopy:** The canopy over 6 feet makes up:		<11% 4					
		21-30% 11-20% 3 2					
		>40% 31-40% 1 0					
10) **Plant Residue:** Dead and decaying plant materials are:		excessive 0					
		appropriate 2 4					
		deficient 2 0					
		TOTALS					
		PASTURE CONDITION					

0-10 = VERY POOR   11-20 = POOR   21-30 = GOOD   31-40 = VERY GOOD