

# THE FORAGER

*Agronomics with livestock in mind!*

## **Determining Pasture Condition...**

Good pasture condition is critical to a successful grazing system. Pasture quality may vary greatly from paddock to paddock and field to field – or even year to year, due to differences in management, environment, fertility, grazing pressure or animal species. This article provides some considerations and methods of evaluating pasture condition and determining if there is a need for improvement. It is also useful in evaluating the impact of management decisions on pastures. Pasture condition scoring involves the visual evaluation of 10 categories, which have an impact on overall pasture quality. The total score for an individual field is determined and that score is used to rank field as a) very poor; b) poor; c) good; or d) very good.

**Plant Desirability:** This will help determine if the types of plants you want are in a pasture. A desirable species is one that provides high quality nutrition and production for a significant part of the grazing season. Desirable species include cool season grasses and legumes, as well as warm season grasses, brassicas, chickory and others. Undesirable species such as thistles, toxic and woody plants are usually not consumed by animals.

**Plant Diversity:** This represents the number of different kinds of plants growing in the field. If only one occurs, diversity is narrow; if more than five kinds are present, diversity is broad. This is important in maintaining a productive pasture throughout the growing season. Count the number of species present and record an appropriate number.

**Plant Density:** A high plant density is important for pasture production. Bare and open spots are unproductive and allow for weed encroachment and soil erosion. Visually estimate the total density of desirable and undesirable species and assign a value based on percent ground covered.

**Plant Vigor:** Desirable species should be healthy and growing at their potential. Consider the size and color of plants, as well as rate of renewed growth following harvest or after being grazed. Determine overall vigor and record.

**Percent Legume:** Legumes are an important source of nitrogen to pastures and improve the quality in a pasture mix. They also provide a valuable feed source during hot, dry periods in mid-summer.

**Severity of Use:** This is a measurement of the amount and frequency of grazing. Close and frequent grazing causes a loss of vigor, a reduction in the density of desired species, and promotes soil erosion. Note: undergrazing may be as detrimental as overgrazing!

**Uniformity of Use:** Differences in species, plant maturity and stocking rates may cause uneven grazing to occur. Uniform grazing results in all plants being grazed to a similar height.

**Soil Erosion:** Low plant densities on sloping soils can result in excessive soil erosion. Evaluate severity of erosion and record.

*(continued in next column)*

*(continued from first column)*

**Woody Canopy:** A woody canopy provides shade for animals but may result in uneven grazing and manure distribution, trampling and erosion. It also intercepts sunlight and competes for water and nutrients. Record a visual estimate of the percent of the field which is covered by a canopy and record its value.

**Plant Residue:** Decaying plant residue provides nutrients and organic matter to the soil. Too much residue (more than two inches) may result in poor nutrient cycling. Too little residue (less than half an inch) may result in excessive water run off.

To use the Pasture Condition Scoresheet simply enter the selected value in the column next to the appropriate category. Add all ten values and compare them to the following table:

PASTURE CONDITION SCORE	CONDITION
0 – 10	Very Poor
11 – 20	Poor
21 – 30	Good
31 - 40	Very Good

Keep in mind that a pasture may score very well overall but still benefit from attention in one or two individual categories.

A sample **Pasture Condition Scoresheet** is displayed on the reverse side of this publication, which can be copied and distributed to your producers, or the Marketing office at Renaissance can provide additional copies.

*(Edited from an article by Cosgrove, Undersander and Davis, U of WI)*

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## Pasture Condition Scoresheet

CATEGORY	PASTURE/FIELD DESCRIPTION				
<p><b>Plant Desirability:</b> The species present are mostly:</p> <p><b>0</b>      <b>1</b>      <b>2</b>      <b>3</b>      <b>4</b> Undesirable      Intermediate      Desirable</p>					
<p><b>Plant Diversity:</b> The diversity of plant species is:</p> <p><b>0</b>      <b>1</b>      <b>2</b>      <b>3</b>      <b>4</b> Narrow <math>\leq 2</math>      Medium 3-4      Broad <math>\geq 5</math></p>					
<p><b>Plant Density:</b> The percent ground cover for desirable and intermediate species is:</p> <p><b>0</b>      <b>1</b>      <b>2</b>      <b>3</b>      <b>4</b> &lt;55      65      75      85      &gt;95</p>					
<p><b>Plant Vigor:</b> Desirable and intermediate species are:</p> <p><b>0</b>      <b>1</b>      <b>2</b>      <b>3</b>      <b>4</b> Weak      Medium      Strong</p>					
<p><b>Legumes in Stand:</b> The percentage of the total biomass which is legume is:</p> <p><b>0</b>      <b>1</b>      <b>2</b>      <b>3</b>      <b>4</b> &lt;10      10-19      20-29      30-39      &gt;40</p>					
<p><b>Severity of Use:</b> The degree and frequency of use is:</p> <p><b>0</b>      <b>2</b>      <b>4</b>      <b>2</b>      <b>0</b> Light      Moderate      Heavy</p>					
<p><b>Uniformity of Use:</b> The uniformity of grazing is:</p> <p><b>0</b>      <b>1</b>      <b>2</b>      <b>3</b>      <b>4</b> Spotty      Intermediate      Uniform</p>					
<p><b>Soil Erosion:</b> Sheet, rill, gully and steam bank erosion is:</p> <p><b>0</b>      <b>1</b>      <b>2</b>      <b>3</b>      <b>4</b> Severe      Moderate      Slight</p>					
<p><b>Wood Canopy:</b> The field percentage covered by a woody canopy is:</p> <p><b>0</b>      <b>1</b>      <b>2</b>      <b>3</b>      <b>4</b> &gt;40      31-40      21-30      11-20      &lt;11</p>					
<p><b>Plant Residue:</b> Dead and decaying plant material is:</p> <p><b>0</b>      <b>2</b>      <b>4</b>      <b>2</b>      <b>0</b> Deficient      Appropriate      Excessive</p>					
<p><b>PASTURE CONDITION SCORE:</b></p>					