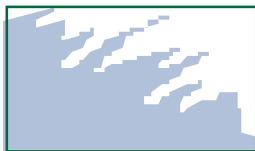


# Determining Pasture Condition

Dennis Cosgrove, Dan Undersander and Maurice Davis



**G**ood pasture condition is critical to a successful grazing system. Pasture quality may vary greatly from paddock to paddock, or year to year, due to differences in management, environment, fertility, grazing pressure or animal species. The intent of this

publication is to provide graziers with a method of evaluating pasture condition and help determine if paddocks are in need of improvement. It is also a useful tool in evaluating the impact of management decisions on pastures.

## PASTURE CONDITION SCORING

Pasture condition scoring involves the visual evaluation of 10 categories which have an impact on pasture condition. The total score for an individual paddock is determined and that score is used to rank that paddock as very poor, poor, good or very good. The 10 categories and the evaluation methods are listed below.

Category	Evaluation Method
<b>Plant Desirability</b>	This will help determine if you have the types of plants you want in a paddock. A desirable species is one that provides high quality and production for a significant part of the grazing season. Desirable species will typically consist of cool season grasses and legumes but may include other species such as warm season grasses, brassicas, chicory and others. Undesirable species, such as thistles, toxic and woody plants, are those which typically are not consumed by animals. Intermediate species are those which, while palatable, provide low tonnage or poor quality forage. Some examples are dandelions and wild plantains. Visually determine if the species present are mostly desirable, intermediate or undesirable and record the appropriate value on the scoresheet.
<b>Plant Diversity</b>	Plant diversity is the number of different kinds of plants which are well represented in the paddock. If only one kind of plant occurs, diversity is narrow; if more than 5 kinds are present, diversity is broad. Diversity is important in maintaining a productive pasture throughout the growing season. Determine the number of plant species present and record the appropriate value.
<b>Plant Density</b>	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 all desirable and intermediate species and assign a value based on percent ground cover.
<b>Plant Vigor</b>	Desirable species should be healthy and growing at their potential. Some things to consider when rating for plant vigor are color, size of plants, rate of regrowth following harvest and productivity. Determine overall vigor of desirable and intermediate species and record.
<b>Percent Legume</b>	Legumes are an important source of nitrogen to pastures and improve quality in a pasture mix. Legumes also provide tonnage during hot, dry periods in mid-summer. Visually estimate the percent of the total biomass which is represented by legumes.
<b>Severity of Use</b>	The proper amount and frequency of grazing are critical in maintaining productive pastures. Close and frequent grazing causes loss of vigor, reduces density of desired species, and promotes soil erosion. Light use allows excessive residue buildup, blocks sunlight and reduces forage quality. Assign a value based on usage of that paddock. Note: undergrazing may be as detrimental as overgrazing
<b>Uniformity of Use</b>	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. Spotty grazing appears uneven, with some plants or parts of the paddock grazed heavily and others lightly. When rating this factor keep in mind that, while overgrazing may result in a uniform height, it is still detrimental to the stand.
<b>Soil Erosion</b>	Low plant densities on sloping soils can result in excessive soil erosion. Evaluate severity of erosion (sheet, rill, gully and stream bank) in the paddock and record the appropriate value.
<b>Woody Canopy</b>	A woody canopy provides shade for animals but may result in uneven grazing and manure distribution, trampling and erosion. A woody canopy also intercepts sunlight and competes for water and nutrients. Estimate the percent of the paddock which is covered by a canopy and record the appropriate value.
<b>Plant Residue</b>	Decaying plant residue provides nutrients and organic matter to the soil. Too much residue (more than 2 inches) may result in poor nutrient cycling. Too little residue (less than 1/2 inch) may result in excessive water run off. Observe the amount of residue and record.

# USING THE PASTURE CONDITION SCORESHEET



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 to the table below to determine paddock condition.

Pasture Condition Score	Condition
0 - 10	Very Poor
11 - 20	Poor
21 - 30	Good
31 - 40	Very Good

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

## EXAMPLES



To the right are two examples to assist in using the Pasture Condition Scoresheet.

Example 1 compares a paddock which has been heavily grazed to one which has had a more moderate grazing schedule. A better managed grazing system has resulted in increased diversity, density and vigor and other improvements. The Pasture Condition Score of 17 in Paddock 1 indicates poor condition while the better managed Paddock 2 has a Pasture Condition Score of 34 indicating very good condition.

Example 2 compares the condition of a paddock before and after frost seeding Red Clover. The frost seeding has resulted in a Pasture Condition Score increase from 25 to 37, or a change from good to very good condition.

The examples shown here are just two of many different ways the Pasture Condition Scoresheet may be used. Evaluating and scoring each of your paddocks throughout the growing season as well as over a period of years will provide a wealth of information to assist in managing pastures for maximum production and return.

### EXAMPLE 1

### EXAMPLE 2

CATEGORY	Paddock 1 Heavy Grazing	Paddock 2 Moderate Grazing	Paddock 3 Before Frost Seeding	Paddock 3 After Frost Seeding
<b>Plant Desirability:</b> The species present are mostly: 0 1 2 3 4 Undesirable Intermediate Desirable	2	3	2	4
<b>Plant Diversity:</b> The diversity of plant species is: 0 1 2 3 4 Narrow<2 Medium 3-4 Broad>5	2	3	3	4
<b>Plant Density:</b> The percent ground cover for desirable and intermediate species is: 0 1 2 3 4 <55 65 75 85 >95	1	3	2	4
<b>Plant Vigor:</b> Desirable and intermediate species are: 0 1 2 3 4 Weak Medium Strong	1	3	2	3
<b>Legumes in Stand:</b> The percentage of the total biomass which is legume is: 0 1 2 3 4 <10 10-19 20-29 30-39 >40	2	3	1	3
<b>Severity of Use:</b> The degree and frequency of use is: 0 2 4 2 0 Light Moderate Heavy	0	4	4	4
<b>Uniformity of Use:</b> The uniformity of grazing is: 0 1 2 3 4 Spotty Intermediate Uniform	1	3	2	3
<b>Soil Erosion:</b> Sheet, rill, gully and stream bank erosion is: 0 1 2 3 4 Severe Moderate Slight	2	4	3	4
<b>Woody Canopy:</b> The paddock percentage covered by a woody canopy is: 0 1 2 3 4 >40 31-40 21-30 11-20 <11	4	4	4	4
<b>Plant Residue:</b> Dead and decaying plant material is: 0 2 4 2 0 Deficient Appropriate Excessive	2	4	2	4
<b>PASTURE CONDITION SCORE:</b>	17	34	25	37

# Pasture Condition Scoresheet

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

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