

**NORTH WEST DEPARTMENT OF AGRICULTURE
AND RURAL DEVELOPMENT
D: AGRICULTURAL DEVELOPMENT SERVICES-
DRKKD**

SD: AGRICULTURAL RESEARCH SERVICES

Date : 18-20 March 2024

Venue : Moretele Kgora FTC

Presenter :EM. Mokuu

PASTURE DIVISION

ARS

POTCHEFSTROOM

VELD CONDITION ASSESSMENT: Grass layer

**PURPOSE OF VELD
CONDITION ASSESSMENT**

- To determine the present condition of the veld and therefore production capacity
- To ascertain why the present condition of the veld is not optimal and thus why optimal animal production cannot be attained

PURPOSE (CONT.)

- To plan management techniques according to the requirements of the veld
- To ascertain the trend of the veld condition and then replan accordingly

- Knowledge of veld - individual species
- Look in the veld - not at the veld
- Knowledge of plant dynamics is handy - not a necessity

VEGETATION COVER

CRITERIA	YES	NO
Are plants close enough together to provide sufficient protection against erosion?	X	
Is more than 20% of the surface area covered by bare patches?		X

VEGETATION COVER (CONT.)

- **Very Poor:** Many bare patches 0 - 3.5
- **Poor:** Bare patches 3.5 - 4.5
- **Satisfactory:** Almost no bare patches 4.5 - 5.5
- **Good:** Tussocks close together 5.5 - 6.5
- **Very Good:** Tussocks close together 6.5 - 7.5
- **Excellent:** Ground surface not visible 7.5 - 10

Score x 10 =(a)

BOTANICAL COMPOSITION

CRITERIA	YES	NO
Are desirable perennial grass species plentiful? > 40%	X	
Are there sufficient desirable perennial grass species? > 60%	X	
Are there too many less desirable and undesirable plants? > 40%		X
Are there more desirable than undesirable plants?	X	

BOTANICAL COMPOSITION (CONT.)

- **Only Undesirable:** Annuals/weak perennials 0 - 3.5
- **Mainly Undesirable:** Weak perennials 3.5 - 4.5
- **Desirable & Undesirable:** Unpal./pal. perennials 4.5 - 5.5
- **Mainly Desirable:** Palatable perennials 5.5 - 6.5
- **Only desirables:** Palatable perennials 6.5 - 10

Score x 10 =(b)

VIGOUR/VITALITY

Criteria	YES	NO
Are there dead tussocks or dead portions of: • Perennial, desirable plants? • Undesirable plants?	X	X
Are there: • Sufficient young plants of the perennial, desirable species? • Few young plants of the undesirable species?	X X	
Is there: • Sufficient new growth of the perennial, desirable species? • Little growth of the undesirable species?	X	X

VIGOUR/VITALITY (CONT.)

- **Very Weak:** Annuals/dead perennials 0 - 3.5
- **Weak:** Annuals/partly dead per. 3.5 - 4.5
- **Satisfactory:** Annual + perennial plants 4.5 - 5.5
- **Good:** Perennials + per. seedlings 5.5 - 6.5
- **Very good:** Vigorous perennial plants 6.5 - 7.5
- **Excellent:** Only vigorous perennials 7.5 - 10

Score x 10 =(c)

SOIL SURFACE CONDITION

Criteria	Yes	No
Are there signs of soil loss, water/wind erosion?		X
Are there signs of drift sand?		X
Is there sufficient organic material on the soil surface?	X	

SOIL CONDITION (CONT.)

- Distinct erosion, no organic material 0 - 3.5
- Distinct erosion around tussocks, no org. material 3.5 - 4.5
- Soil loss around tussocks, little organic mat. 4.5 - 5.5
- Little soil loss, but moderate amount of org. material 5.5 - 6.5
- No soil loss, sufficient organic material 6.5 - 7.5
- Soil surface covered with organic material 7.5 - 10

Score x 10 =(d)

INSECT AND/OR RODENT DAMAGE

Criteria	Yes	No
Are there signs of insect and/or rodent damage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Specify (e.g. termites)	<input type="checkbox"/>	<input type="checkbox"/>

DAMAGE (CONT.)

- **Very Severe:** Tufts totally ravaged 0 - 3.5
- **Severe:** Only stems still visible 3.5 - 4.5
- **Moderate:** Clipped leaves visible 4.5 - 5.5
- **Slight:** A few anthills/nests present 5.5 - 6.5
- **Insignificant:** Not clearly visible 6.5 - 7.5
- **None:** 7.5 - 10

Score x 10 =(e)

VELD CONDITION ASSESSMENT

The total veld condition assessment (V) is
calculated as follows:

$$\begin{aligned}
 V &= (a \times 0.3) + (b \times 0.3) + (a \times b \times 0.002) + \\
 &\quad (c \times 0.05) + (d \times 0.1) + (e \times 0.05) \\
 &= \dots + \dots + \dots + \dots + \dots \\
 &= \dots\dots\dots
 \end{aligned}$$