

Grazing capacity

Grazing capacity is the number of animals that can graze the veld without deterioration of the veld condition. Grazing capacity is expressed in “hectares per livestock unit” (ha/LSU). The grazing capacity depends on rainfall, soil type, grass types and current veld condition. It is important to do a veld condition assessment regularly to get an up-to-date grazing capacity.

What is a livestock unit (LSU)?

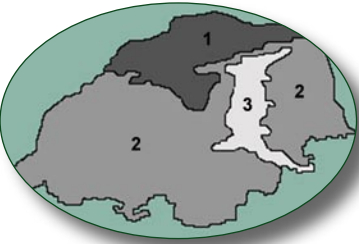
A livestock unit is an animal with a weight of 450 kg. All animals can be converted to livestock units by using the conversion table (see below).

Animal	Production Phase	LSU
Cattle	Calf	0,32
	Weaner calves	0,44
	Cow or heifer	1,10
	Steer (18 moths plus)	0,75
	Steer (3 years plus)	1,10
Sheep	Bull (3 years plus)	1,36
	Lamb	0,08
	Weaner lambs	0,11
	Ewe	0,16
	Wether (2-tooth plus)	0,16
Goat	Ram (2-tooth plus)	0,23
	Kid	0,08
	Weaner kids	0,12
	Ewe (2-tooth plus)	0,17
	Castrate (2-tooth plus)	0,17
Warthog	Ram (2-tooth plus)	0,22
	Piglet (unweaned)	0,08
	Young warthog	0,08
	Sow (mature)	0,20
	Boar (mature)	0,25
Impala	Lamb (unweaned)	0,05
	Young impala	0,08
	Ewe (mature)	0,14
	Ram (mature)	0,16

Grazing capacity in Limpopo

The grazing capacity in Limpopo varies between about 4–25 ha/LSU. The map shows the approximate grazing capacities for the rainfall zones in the province:

Zone	Grazing capacity
1	13–25 ha/LSU
2	6–15 ha/LSU
3	4–10 ha/LSU



What is stocking rate?

The stocking rate is the number of animals grazing a specific area for a given time also expressed in ha/LSU/year. The stocking rate should always be in line with the current grazing capacity.

Other useful information

Books

Veld Management in South Africa, Tainton (Ed.), KZN Press.
Game Ranch Management, Bothma, J. du P. (Ed.), Van Schaik.
The vegetation of South Africa, Lesotho and Swaziland, Mucina, L. & Rutherford, M.C. (Eds). Strelitzia 19. South African Biodiversity Institute.
Guide to Grasses of Southern Africa, Van Oudtshoorn, F., Briza Publications.

Contact numbers

LDA Pasture and Veld Management and Animal Nutrition unit – 015 294 3000
NDA Directorate Land Use and Soil Management – 015 295 4175
LandCare Helpline – 012 319 7553
Working for Water programme – 0800 005 376

Important legislation

National Environmental Management Act 107 of 1998 (NEMA)
Conservation of Agricultural Resources Act 43 of 1983 (CARA)
National Veld and Forest Fire Act 101 of 1998
National Environmental Management: Biodiversity Act 10 of 2004

Useful websites

www.gssa.co.za
www.workingonfire.org
www.nda.agric.za/publications
www.agis.agric.za
www.dwaf.gov.za/wfw

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VELD MANAGEMENT
The Basics

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Introduction

Veld management refers to the utilisation and management of forage in veld (grasses and trees) for animal production, through grazing and browsing.

Practical veld management

Veld management involves the planned movement of animals and the control of animal numbers to keep the veld in a good condition and to improve veld that is in a



What is the aim of veld management?

The ultimate aim of veld management is to protect and even build up topsoil to ensure current and future food production. Grasses are extremely effective in stabilising topsoil and should therefore be well managed in order to maintain a good soil cover. Therefore, the livestock farmer is actually also a grass farmer.

What happens when there is long-term overgrazing?

A lack of proper veld management leads to overgrazing. During continuous long-term overgrazing, grasses die off and lose their hold on the ground and soil washes away. Grasses, and especially good grazing grasses, cannot grow in eroded areas.



What is overgrazing?

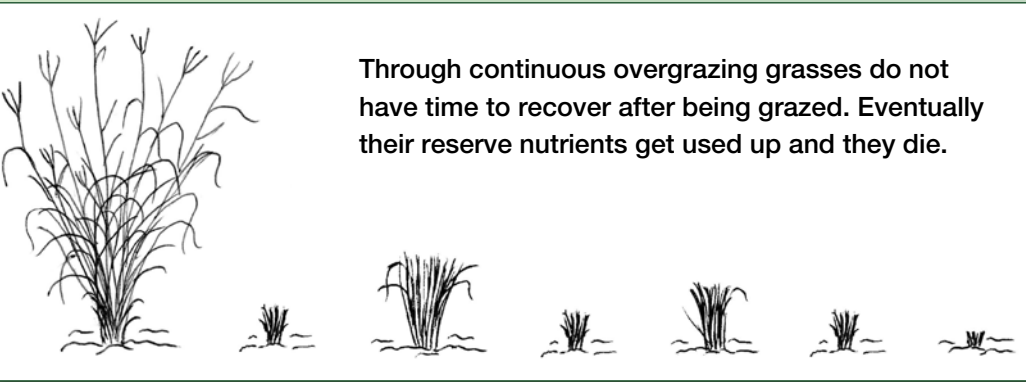
Overgrazing refers to the over-utilisation of veld by grazing animals. Long-term overgrazing results in the deterioration of veld. During long-term overgrazing, first palatable grasses and then other grasses die off due to heavy grazing without periods of rest. Veld deterioration through overgrazing can be prevented by keeping to the correct stocking rate and applying rotational grazing.

What are the signs of overgrazing?

The results of overgrazing become visible through a poor grass species composition and/or excessive bare patches and/or topsoil erosion. Bare patches, in turn, result in poor rainwater infiltration and increased rainwater runoff, which causes “drought” conditions and soil erosion.

What if there is a drought?

During a drought, the grass production drops. It is then vital to reduce animal numbers. This will speed up the recovery of the veld after the drought. Good grass cover and higher rainwater infiltration will increase grass production.



Veld rest and rotational grazing

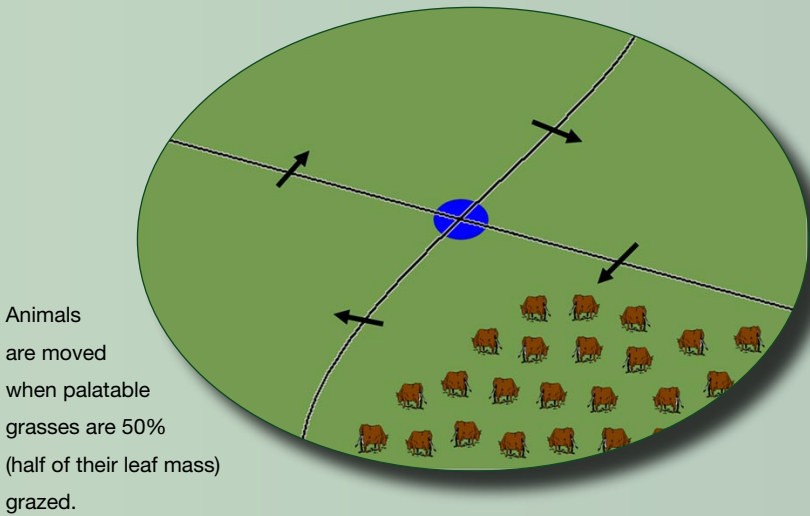
If grasses are continuously grazed and do not get rest, they become weak and they die. For this reason, rotational grazing is used to move animals from camp to camp to allow grasses to rest and stay productive. Except for keeping the correct amount of animals on a farm, veld rest is the second most important veld management principle.

How does rotational grazing work?

Animals are allowed to graze a camp only until the palatable grasses have been grazed to 50% of their leaf mass and are then moved to the next camp. Rotational grazing is especially important during the rainy season when the grasses are actively growing. The aim of rotational grazing is to minimise species- and area-selective overgrazing.

Rotational grazing principles

- Camp divisions should be according to veld and soil type.
- A minimum of three camps is needed per group of animals.
- It is highly recommended that a third of the farm be rested for a whole season (November–March) each year.
- Veld improvement can only succeed if the farm is not overstocked.



Infrastructure

Why is infrastructure important?

Infrastructure (fences, water points and roads) supports and promotes good veld management. Without infrastructure it is difficult to control the grazing intensity of animals, which leads to overgrazing. The development and maintenance of appropriate infrastructure on a farm is one of the most important management aspects to promote long-term productivity.

Why camps?

Fences and camps are used to manage the movement of animals from one area to another (rotational grazing). Without camps animals cannot be controlled effectively and the veld cannot be rested. Veld rest is extremely important to allow grasses to recover from grazing, produce seed, restore reserve nutrients and continue to produce enough good quality forage for animals.



Water points

Each camp should have adequate clean drinking water for animals. Without water in every camp, the camp cannot be utilised effectively. Too few water points lead to overgrazing around the water points, and undergrazing where there is no water.



Veld and fire

An important part of veld management is to prevent accidental fires from destroying valuable grazing. The occurrence of veld fires and damage caused to grazing, property and forestry areas increase every year.



What are the responsibilities of the landowner or land user?

1. Prepare boundary firebreaks.
2. Have fire-fighting equipment, trained people and protective clothing on hand.
3. Appoint a responsible person when not present.
4. Fight fires on your own and adjoining land.
5. Ensure fires do not start from your property.
6. Get a burning permit from the NDA if planning to burn (excluding firebreaks).
7. Notify neighbours of any planned burning (including firebreaks).

What is an FPA?

The Veld and Forest Fire Act 101 of 1998 encourage landowners and land users to belong to a local Fire Protection Association (FPA). The function of an FPA is to more effectively control wild fires through a coordinated effort. Information can be obtained from the nearest Department of Water Affairs and Forestry (DWAF) office.



Firebreaks

Firebreaks slow down a fire and allow quick access to the fire. Recommended methods of making firebreaks are by slashing, spraying herbicides and/or burning. Firebreaks should be at least 10 m wide.