

CONSERVATION AREAS (Ch.4)

GRASSLAND MANAGEMENT (p44)

The Conservation of Agricultural Resources Act (CARA), 43 of 1983 as amended

Grassland Facts:

72/3

vegetation types in South Africa divided into groups:

1. DRY HIGHVELD
2. MESIC
3. INDIAN OCEAN COASTAL

Cover

1/3

of South Africa's land surface



Critically important for water production

GRASSLAND MANAGEMENT: To maintain a favourable grass species composition of optimum quantity and quality for biodiversity, conservation and animal productivity.

Grazing

There are various types of grazing system.

Continuous

involves one group of animals on an area of land for an entire grazeable period.

Rotational

involves at least one camp more than there are groups of animals, with livestock rotation around these during the grazing period

Grazing capacity

is the area of land required to maintain a grazing animal over an extended period without degradation to the vegetation or soil.

Fire

Burning is a natural part of grassland ecosystems, which promotes biodiversity through controlling the encroachment of undesirable plants and maintains ecosystem functions. It also reduces fuel load.

Hot burns

achieve a clean burn for fire protection purposes and to remove moribund grass

- Low soil moisture
- High temperatures
- Low humidity

Cool burns

protect biologically sensitive areas.

- High soil moisture
- Cool weather
- Humid/moist conditions

When to burn

DRY HIGHVELD AND MESIC

- Winter/early spring when grasses are dormant
- Mosaic of irregular burning 2-3 years at most under different conditions (hot, cool, humidity, direction of burn etc.)

When to graze

- Post-burn >25cm growth
- Within carrying capacity with 1 year's rest before being grazed or burnt again

INDIAN OCEAN COASTAL

- Require burning to prevent increases in woody species, AIS and moribund grass
- Results in patchy burns due to the lack of a distinct dry season

- Post-burn >25cm growth
- Within carrying capacity with 1 year's rest before being grazed or burnt again

Management Dos

- Fire management at any site should be varied in terms of humidity, temperature, wind direction, etc.
- Fire refugia - rocky outcrops/wetlands - need protecting through the use of cool burns
- Leave a matrix of burnt and unburnt blocks to provide habitat variability
- Only burn less than 50% of the management area
- Grazed land should be burnt during dormant periods and new growth should exceed 25cm before grazing commences
- Seek expert advice before implementing Patch Matrix Burn (PMB) approach

Management Dont's

- Avoid annual burning other than fire breaks
- Avoid burning at inappropriate times of the year (late spring and beyond recommended fire season)
- Avoid hot burns in steep/rocky areas where it can lead to soil erosion
- Management areas should not be burnt less frequently than every 3-4 years
- Repeated mowing as an alternative to burning is not recommended
- Do not graze fire refugia and areas important for diversity - rocky outcrops/wetlands - for extended periods, especially after burning.
- Wetlands should not be burnt annually or completely burnt

