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A REVIEW OF THE PRINCIPLES OF VELD MANAGEMENT AND THE CONSEQUENCES OF POOR VELD MANAGEMENT

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Introduction

The objectives of grazing and browsing management are to maintain or create a favourable species composition, maintain optimum quantity and quality of plant food and maintain the highest animal productivity within the constraints of the farm. In order to do this, the following factors can be manipulated: stocking rate, grazing program, resting program, the use of fire and animal type. Grazing capacity is an important factor in veld management. It is the area of land required to maintain a grazing animal unit over an extended period without degradation to the vegetation or soil. Should the grazing capacity of the veld be exceeded, then degradation will begin. There are two types of grazing systems – continuous grazing and rotational grazing. Continuous grazing involves one group of animals on an area of land for an entire grazeable period. Rotational grazing involves at least one camp more than there are groups of animals and the livestock rotate between these camps within a grazing season.

Discussion

Veld assessments need to be done at regular intervals in order to determine the grazing capacity of a rangeland. Veld assessments give an indication of what species are present and how vigorous the plants are. Once these assessments have been done, areas can be fenced into uniform camps and the livestock numbers can be matched to the grazing capacity and camp size. Palatable areas need to be separated from unpalatable areas based on uniformity – these are known as veld types. The number of animals that can be run on a farm must not exceed the grazing capacity of the farm. If this happens, there will be insufficient food for livestock; veld productivity will decrease as a result of overgrazing and ultimately, the farmer will lose money. The stocking rate that is implemented is dictated by the condition of the veld, as indicated by a veld assessment. Exceeding grazing capacity occurs in two forms: keeping animals in a camp for too long (not enough time allowed for grasses to recover) and carrying too many animals on an area of land. Both have serious consequences. Not allowing a grassland sufficient time to recover will deplete the carbohydrate reserves and the plant will lose vigour. Loss of vigour can ultimately lead to species dying out of the grassland due to overutilization. Carrying too many animals on an area is called overgrazing and this usually occurs for extended periods of time. Exceeding grazing capacity decreases the productivity of grasslands, decreases biodiversity and ultimately leads to erosion.

Research has proven that steep slopes need to have lighter stocking rates than flatter slopes, in order to prevent degradation and erosion. The grazing of sheep on very steep slopes is not recommended – degradation will occur at a rapid rate. There are several systems that can be used for implementing grazing rotations. The system implemented is determined by the degree of management available. The more complex grazing systems need a higher level of management than the simpler grazing systems. The system that can be used in communal areas is the three-camp system. Continuous grazing in communal areas is an option, as long as the grassland is allowed to have a full seasons rest at least once every three to five years. If grasslands are utilized by sheep alone, then rests every second year are needed. Time cattle spend in a camp is important, as is time cattle are out of the camp. Grasslands needs to have a full

season's rest to allow it to regain vigour and to set seed. Burning to stimulate a spring flush is not recommended. Not only will a burn remove any cover that is holding the soil (preventing erosion), it will force the grass to grow at a time when it is not conducive to do so, resulting in decreased vigour. Another important factor to consider is the animal type – match the animal to the environment.

Conclusions

The veld is the only asset many farmers have at their disposal. The tools available to a farmer for veld management include stocking rate, grazing program, resting program, the use of fire and animal type. The objective of veld management is to provide good soil cover with edible perennial grass plants that ensure long-term sustainable production with maximum financial return.