

Potential paper topics for the GSSA special issue on “CELEBRATING 60 YEARS OF RANGELAND AND PASTURE RESEARCH IN AFRICA”.

1. HISTORY AND EVOLUTION OF RESEARCH IN THE JOURNAL

This paper will offer a comprehensive overview of the development of rangeland and forage science as published in the Journal. It will emphasise crucial milestones, influential researchers, editors and other people, pivotal papers, and major research themes that have shaped the field over the past 60 years.

2. THE ECOLOGY AND FUNCTION OF RANGELANDS

This paper will provide an outline of the research conducted to understand the fundamental ecology and function of rangelands in southern Africa, including their environmental and edaphic determinants, the eco-physiology and growth of their constituent plants, and plant-herbivore interactions.

3. RANGELANDS FOR COMMERCIAL LIVESTOCK PRODUCTION

This paper will explore research advancements in characterising the forage production potential of natural rangelands in southern Africa. It will examine their capacity to sustain economically viable commercial livestock production, including the development of appropriate grazing management strategies and systems.

4. CULTIVATING PASTURES AND FORAGE PRODUCTION

The focus of this paper will be on the research related to cultivating and managing grass pastures and other forages, including indigenous plants, for the purpose of economic livestock production or subsistence in various bioclimates. The development of appropriate grazing or other management systems for optimal forage production and quality will also be considered.

5. RANGELANDS SUPPORTING PEOPLE

This paper will examine studies contributing to the sustainability of farming systems, livelihoods, and food security for communities that live and directly rely on rangelands and their resources. It will particularly focus on people and communities residing in communal rangelands.

6. RANGELAND RESILIENCE TO CLIMATE CHANGE

This paper will outline scientific research assessing the potential multiple impacts of anthropogenic climate change on multifunctional rangelands and forage production. It will explore the resilience of ecosystems, landscapes, communities, and farming systems in the face of climate change.

7. RANGELAND ASSESSMENT AND MONITORING

This paper will highlight innovative approaches and technologies reported in the Journal for assessing and monitoring landscapes and vegetation communities, rangeland condition and ecosystem health, as well as forage production and quality. It will explore how these tools and methods have contributed to an improved understanding and management of rangeland and forage production systems.

8. SPECIAL TOPICS OF CONCERN

Papers that will separately consider the scientific development and contributions of research on topics that have been of particular concern in southern African rangelands, including (but not limited to):

- (1) Fire – exploring the ecology and appropriate burning management practices for sustaining production and ecosystems.
- (2) Bush encroachment – examining changes, causes, ecological impacts, and management strategies for preventing or reducing woody plant thickening and invasion.
- (3) Rangeland degradation and restoration – assessment, consequences, and rehabilitation of degraded rangelands and forage production systems.