Does short duration grazing work in grasslands?

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Does short duration grazing improve livestock production, veld condition and climate resilience compared to other grazing systems in a mesic grassland of South Africa?

Industry Sector: Cattle And Small Stock

Research Focus Area: Sustainable Natural Resource Utilization

Research Institute: Universtity Of Cape Town

Researcher: Dr Heidi Hawkins

Research Team

Title	Initials	Surname	Highest Qualification
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Year Of Completion : 2018

Aims Of The Project

- Overall we wish to test the alleged mechanisms by which short duration grazing (or Holistic Planned Grazing, HPG) “works” explicitly by looking at the underlying mechanisms at the fine scale and overall effects at the camp/farm scale and how these vary and interact with rainfall, temperature, time and specific camps. We wish to apply this understanding to inform efforts being undertaken by government and NGOs to generate sustainable and more commercial red meat production from communal rangelands and land redistribution farms in one of South Africa’s biodiversity ‘hot spots’.
- At the scale of an experimental farm and experimental plots we test claims that high animal densities in HPG reduces selectivity during defoliation of key plant species leading to conservation of species composition (biodiversity), forage quantity and quality throughout the year

- At the scale of the farm, plots and pot experiments we determine how grazing intensity (recovery periods /defoliation frequency x defoliation intensity) affects plant recovery.
- At the scale of the farm and plot we test claims that trampling (from intense hoof action during HPG) results in increased incorporation of nutrients (litter, dung, urine) and water, resulting in increased soil organic matter, nutrients including carbon, microbial activity, soil water infiltration, and reduced compaction and erosion.
- At the farm scale, we test claims that the increased forage quantity and quality HPG increases animal gain ha-1, meat quality and profit of marketable animals; and at the scale of the individual a