

Dr. Solomon Tefera Beyene

Senior Lecturer

Dept: Livestock and Pasture Science

Email: sbeyene@ufh.ac.za ^[1]; teferabeyenesolomon@yahoo.com ^[2]

Tel: +27 406022499 (office)

Qualification:

- PhD (Grassland Sciences), University of Free State, Bloemfontein, South Africa, 2003.
- MSc (Animal Production) , Alemaya University Ethiopia, 1998
- BSc (Animal Sciences), Alemaya University of Agriculture, Ethiopia, 1992

Development/ Research Interest and career goals:

- 1) Improvement of livestock and forage resource base in the communal/pastoral livestock production
- 2) population dynamics of savannas and impact assessment of interventions in terms land uses, **expansion of agriculture, development of water ponds and Diptanks** in the marginal communal/pastoral and private cattle and game rangelands,
- 3) Investigation of nutritive value and in vitro fermentation of herbaceous and browse plants on rangelands, and developing selected species to be utilized at communal-small scale and/or commercial-large scale level,
- 4) restoration of degraded pasture/ rangelands,
- 5) invasion of rangelands by alien plants, ethno-botany of rangeland plants and wild food/feed plants,
- 6) Indigenous knowledge and perceptions of the communal people towards rangeland degradation and integration of the IK in rangeland development and rehabilitation interventions, restoration of rangelands from the soil seed banks,
- 7) Impact assessment of global climate change on rangeland vegetation cover, diversity and composition as well as on soil characteristics

Teaching experience

- Range Ecology, Diversity and
- Ranch Management
- Pasture and Fodder Management
- Apiculture
- Presentation skills

- Rang Management
- Game ranching & Farming
- Rangeland Ecosystem Structure and Function
- Rangeland Degradation and Mitigation

Research Grants and consultancy

-Govan Mbeki Research and Development Centre (GMRDC) research and scholarship funds (2011-current)

-UNISWA Research award, September 2004. Evaluation of vegetation diversity and grassland condition, soil seedbank characteristics and diet selection of cattle in Swazil rangelands.

-UNISWA Research award, September 2007. Assessment livestock production and rangeland degradation, vegetation and soil quality around dip tank areas in the lowveld communal grazing lands of Swaziland.

Consultancy

-Building Climate Change Resilience For African Livestock Production Systems: Case report on Namibia, Malawi and Kenya (Given By International Union For Conservation of Nature)

-Developing pastoral Policy frame work (By African Union and UN-OCHA)

Editorial and peer reviewing activity

-Journal of Environmental Management

-Journal of Arid Environments

-Agriculture, Ecosystems and Management

-Agronomy and Soil Science

-Basic and Applied Ecology

-Environmental Science & Policy

-Land Degradation and Development

-International Journal of Agricultural Science

-International Journal of Botany

-Research Journal of Botany

-Research Journal of Environmental Sciences

- UNISWA Journal of Agriculture

-African Journal of Ecology

Peer-reviewed articles

1. **Solomon Tefera Beyene**. Rangeland degradation in a semi-arid communal savanna of Swaziland: Long-term dip-tank use effects on woody plants structure, cover and their indigenous use in three soil types. **(In Press: Land Degradation and Development)**.

2. **Solomon T. Beyene**. Rangeland degradation in a semi-arid Swaziland: Effects of dip-tanks on herbaceous vegetation and soil properties. **(In Press: African Journal of Range and Forage Sciences)**.

3. **Solomon T Beyene and V. mlambo**. 2012. Yield and Nutritive Values of Grasses in Degraded Communal Savannas of Swaziland Surrounding Dip-tanks and Relationship with Soil and Herbaceous Structure. ***Animal Nutrition and Feed Technology*. 12: 279-296**

4. **B. Solomon Tefera and M.W. Mabuza**. Preliminary investigation on piosphere formation around dip-tank areas in the lowveld and lower middleveld communal grazing lands of Swaziland: 1) grass species distribution and soil nutrients **(Accepted, *UNISWA Research Journal of Agriculture, Science and Technology*)**

5. **B. Solomon Tefera and M.W. Mabuza**. Preliminary investigation on piosphere formation around dip-tank areas in the semi-arid communal grazing lands of Swaziland: 2) Assessment of the rangeland condition **(Accepted, *UNISWA Research Journal of Agriculture, Science and Technology*)**

6. **Solomon Tefera. B and Victor Mlambo**. Botanical and chemical composition of common grass species around dip-tank areas in semi-arid communal rangelands of Swaziland. ***Tropical and Subtropical Agroecosystems*. 15: 143-152**

7. **Solomon Tefera B. 2011**. Soil seed bank dynamics in relation to land management and soil types in the semi-arid savannas of Swaziland. ***African Journal of Agricultural Research*. 6 (11): 2494-2505.**

8. **V Mlambo, B J Dlamini, M D Ngwenya, N Mhazo, S T Beyene, J L N Sikosana. 2011**. ***In sacco*** and ***in vivo*** evaluation of marula (*Sclerocarya birrea*) seed cake as a protein source in commercial cattle fattening diets. *Livestock Research for Rural development*. 23 (5).
<http://www.lrrd.org/lrrd23/5/mlam23121.htm> [3]

9. **B. Solomon Tefera**, and **V. Mlambo**. 2010. Encroachment of *Acacia brevispica* and *Acacia drepanolobium* in semi-arid rangelands of Ethiopia and their influence on understorey species. *Research Journal of Botany* . 5 (1): 1-13.
10. **Solomon Tefera**., **B.J. Dlamini** and **A.M Dlamini**. 2010. Changes in soil characteristics and grass layer condition in relation to land management systems in the semi-arid Savannas of Swaziland. *Journal of Arid Environment*.74 (6): (675-684)
11. **S. Tefera**., **V. Mlambo**¹, **B. J. Dlamini**¹., **A.M. Dlamini**., **K.D.N.Koralagama** and **F. L. Mould**. 2009. Chemical composition and *in vitro* Fermentation of selected grasses in the semi-arid savannas of Swaziland. *African Journal of Range and Forage Science*. 26 (1): 9-17
12. **V. Mlambo**, **B.J. Dlamini**, **Solomon Tefera**. and **N.F. Dlamini**. 2008. Effect of *Dichrostachys cinerea* and *Acacia nilotica* leaf phenolics on *in vitro* degradability of substrates with different fibre and protein content. *UNISWA Research Journal of Agriculture, Science and Technology*. 11 (1): 44-50.
13. **Solomon Tefera**., **B.J. Dlamini** and **A.M. Dlamini**. 2008. Dynamics of savannas in Swaziland: Encroachment of woody plants in relation to land management and soil classes in the semi-arid Lowveld rangelands. *Research Journal of Botany*. 3 (2): 49-64.
14. **Solomon Tefera**., **B.J. Dlamini**, and **A.M. Dlamini**. 2008. Invasion of *Chromolaena odorata* on semi arid rangelands of Swaziland and its effect on the herbaceous layer Productivity. *International Journal of Agricultural Research*. 3 (2): 98-109.
15. **Solomon Tefera**., **V. Mlambo**, **B. J. Dlamini**, **A.M. Dlamini**., **K.D.N. Koralagama** and **F. L. Mould**. 2008. Chemical composition and *in vitro* rumenal fermentation of common tree forage in the semi-arid rangelands of Swaziland. *Animal Feed Science and Technology*. 142: 99-110.
16. **Solomon Tefera**., **Dlamini B.J.** and **A.M Dlamini**. 2007. Current range condition in relation to land management systems and soil classes in semi-arid savannas of Swaziland. *African Journal of Ecology* . 46 (2): 158-167.
17. **Solomon Tefera**, **H.A. Snyman** & **G.N. Smit**. 2007. Rangeland dynamics in Ethiopia: 3. Assessment of rangeland condition in relation to land use and distance from water in semi-arid Borana. *Journal of Environmental management*. 85: 453-460.

- 18. Solomon Tefera, H.A. Snyman & G.N. Smit. 2007. Rangeland dynamics in Ethiopia: 2. Assessment of woody vegetation structure in relation to land use and distance from water *Journal of Environmental management*. 85. 443-452.**
- 19. Solomon Tefera, H.A. Snyman & G.N. Smit. 2007. Rangeland Dynamics in Ethiopia: 1. Botanical composition of grasses and soil characteristics in relation to land use and distance from water. *Journal of Environmental management*. 85:429-442.**
- 20. T.B. Solomon, H.A. Snyman & G.N. Smit. 2007. Cattle-rangeland management practices and perceptions of the pastoralists towards rangeland degradation in the Borana of Southern Ethiopia. *Journal of Environmental Management*. 82: 481-494.**
- 21. T.B. Solomon, H.A. Snyman & G.N. Smit. 2006. Soil seed bank characteristics in relation to land use systems and distance from water in a semi-arid rangeland of southern Ethiopia. *South African Journal of Botany*. 72:263-271.**
- 22. Alemu Yami, Solomon Tefera & Tadele Dessie. 2002. Evaluation of pepper spent as an egg yolk coloring agent in the diet of white leghorn layers. *Ethiopian Journal of Science*. 25 (1): 27-34.**
-

Links:

[1] <mailto:sbeyene@ufh.ac.za>

[2] <mailto:teferabeyenesolomon@yahoo.com>

[3] <http://www.lrrd.org/lrrd23/5/mlam23121.htm>