

**SCIENTIFIC PROGRAMME****TUESDAY 21 JULY 2009**

TIME	TITLE	AUTHOR/S	PAGE
PLENARY SESSION			
Opening of the 44th Annual Congress of the Grassland Society of Southern Africa (Session Chair: Leslie R Brown)			
08:30-08:40	Welcome	Mike D Panagos	
08:40-09:00	Opening Address	Mandla S Makhanya	
09:00-09:05	Introduction of Keynote Speaker: Prof Braam van Wyk	Mike D Panagos	
09:05-10:00	Keynote Address I: Intriguing biological aspects of southern African grasslands: observations, questions and hypotheses	Braam (A) E van Wyk	19
10:00-10:30	TEA		
10:30-10:35	Introduction of Keynote Speaker: Prof Roland Schulze	Alan D Short	
10:35-11:30	Keynote Address II: Climate change and the South African agriculture sector: fatter or leaner years?	Roland E Schulze	20
PARALLEL SESSION A			
The Production Potential of Low Input Planted Pastures Systems (Session Chair: Wayne F Truter)			
11:30-11:50	A minimum-till approach for pasture production on marginal lands in the Eastern Cape province	Jorrie (G) Jordaan and Pieter W Conradie	21
11:50-11:55	A preliminary investigation of the potential for maize-forage legume intercropping in the semi-arid area of the Eastern Cape	M Chris Mbuti	21
11:55-12:00	Production and grazing capacity of kikuyu/taaipol pasture over-sown with different mixtures of grass and legume species in a low input pasture system for beef cattle.	M Dalena (M) Lombard, Philip R Botha and Robin Meeske	23
12:00-12:20	What are the benefits of cropping in an arid communal farming system?	Igshaan Samuels	24
12:20-12:25	The performance of organic and inorganic fertilizer on the dry matter production of <i>Anthephora pubescens</i> under dryland conditions	N Eunice Choshi and Chris S Dannhauser	24
12:25-12:45	Contribution of composted cattle manure to the production and quality of <i>Pennisetum purpureum</i> pasture systems in Uganda	S Katurumunda, Elly N Sibiiti and M A Bekunda	25
12:45-12:50	The evaluation of dry matter yield and forage quality of four cultivated pastures as influenced by three frequencies of flood irrigation in the False Upper Karoo	Phillip T Nengwenani, Wayne F Truter and Marisa Coetzee	26
12:50-12:55	The potential of cactus pear (<i>Opuntia ficus-indica</i>) as an animal fodder	Herman J Fouché, G M Engelbrecht and Paul L Avenant	26
12:55-13:00	The reliability of field test kits for the detection and the persistence of <i>Synergistes jonesii</i> bacteria in the rumen of sheep through winter drought in the Highveld of South Africa without <i>Leucaena</i> in the diet	Mary M Masafu and M J Lington	27
13:00-14:00	LUNCH		
Legumes as Forage Crops (Session Chair: Pieter W Conradie)			
14:00-14:20	South African legume diversity and forage potential	Marike Trytsman and Braam (A) E van Wyk	28
14:20-14:40	Chemical composition of browse and forage legumes at different stages of growth in Zimbabwe	Joseph J Baloyi, N T Ngongoni and H Hamudikuwanda	28
14:40-14:45	Nodulation and cross nodulation effectiveness of clover rhizobia isolated from the soils of the Eastern Cape	Andiswa Finca, Anthony Okoh and John Howieson	29
15:00-15:30	TEA		
Milk Production from Pastures (Session Chair: Philip R Botha)			
15:30-15:50	Dry matter production, quality and milk production of ryegrass species over-sown into irrigated kikuyu	Janke van der Colf, Philip R Botha, Robin Meeske and Wayne F Truter	30



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16:10-16:30	High fibre concentrates for Jersey cows grazing kikuyu/ryegrass pasture	Robin Meeske, P C Cronje and G D van der Merwe	32
16:30-16:50	Economics of milk production from kikuyu/ryegrass pasture systems	Robin Meeske, Janke van der Colf, Philip R Botha and Wayne F Truter	33
PARALLEL SESSION B			
SPECIAL SESSION: Biodiversity in Agricultural Good Management Practices for Livestock Production Systems on Natural Grasslands (Session Chair: Kevin P Kirkman)			
11:30-11:40	Welcome and background	Brent Corcoran	
11:40-11:45	Workshop outcomes and “Rules for Engagement”	Kevin P Kirkman	
11:45-12:00	<i>Introductory Presentation I: A general model of patterns of rangeland plant diversity and function</i>	Roger G Uys	35
12:00-12:15	<i>Introductory Presentation II: What are the impacts of controlled communal grazing on plant diversity at Cathedral Peak’s leased grazing area?</i>	C Rob Scott-Shaw, H Hlela, Cobus (J) O Botha and R van der Westhuisen	36
12:15-12:30	<i>Introductory Presentation III: Cost-effective conservation reserves for Australia’s broad-acre grazing landscapes - ecological and economic effectiveness?</i>	Neil D MacLeod, Tara G Martin and Alan P N House	36
12:30-13:00	<i>Main Presentation: Concept Paper on “Biodiversity in Agricultural Good Management Practices for Livestock Production Systems on Natural Grasslands” - An assessment of the relative benefit of grazing management practices for maintaining grassland biodiversity</i>	Tim G O’Connor, Kevin P Kirkman and Brent Corcoran	37
13:00-14:00	LUNCH		
14:00-14:15	Questions of clarity on presentations	Facilitator: Kevin P Kirkman	
14:15-14:25	The Grassland Programme’s Value Chain Analysis for Red Meat Production	Richard C Hurt and Alastair G Paterson	50
14:25-14:30	Preparation for small group discussions	Kevin P Kirkman	
14:30-15:30	Small group discussions on key topics (including TEA from 15:00 to 15:30)	Facilitator: Group Chairs	
15:30-16:15	Report-backs from small groups	Facilitator: Kevin P Kirkman with rapporteurs	
16:15-16:45	Summing up the day’s discussions	Kevin P Kirkman and Tim O’Connor	
16:45-17:00	Way forward and closure	Brent Corcoran	
17:00-18:00	Additional time for discussions on the day’s outcomes	Kevin P Kirkman and Brent Corcoran	

**WEDNESDAY 22 JULY 2009**

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PARALLEL SESSION A			
SPECIAL SESSION: Payment for Ecosystem Services: Putting Rangelands in to the Mix (Session Chair: Rina (C) C Grant)			
08:30-08:50	Models of landscape water use: field studies of evapotranspiration versus MODIS LAI. Can these be used to determine payments for ecosystem services?	Tony (A) R Palmer, Sigfredo Fuentes, Daniel Taylor, Cate Macinnis-Ng, Melanie Zeppel, Isa Yunusa and Derek Eamus	51
08:50-09:10	Toward defining the contribution of any specific rangeland to provision of ecosystem services	Tim O'Connor	51
09:10-09:30	Carbon: A means to incentivise and enhance conservation in the uKhahlamba Drakensberg?	Tony Knowles, Graham von Maltitz, Rudzani Makhado and Steve McKean	52
09:30-09:50	Ecosystem services assessments in changing agricultural landscapes	Patrick O'Farrell, David Le Maitre, Willem de Lange, Sue Milton, Belinda Reyers, Doreen Atkinson, Benis Egoh, and James Blignaut	52
09:50-10:30	Facilitated discussion		
10:30-11:00	TEA		
WORKSHOP: Development of new National Long Term Grazing Capacity Norms (Facilitator: Paul L Avenant)			
13:00-14:00	LUNCH		
WORKSHOP: Development of new National Long Term Grazing Capacity Norms (Facilitator: Paul L Avenant)			
15:00-15:30	TEA		
Long-Term Trends in Rangelands (Session Chair: Frits P van Oudtshoorn)			
15:30-15:50	Long-term effects of burning on basal cover and species richness on the False Thornveld of Eastern Cape	Clement Ratsele, Sikhhalazo Dube and Mota S Lesoli	62
15:50-16:10	Effect of frequency of fire on light interception, Leaf Area Index and aboveground phytomass in the False Thornveld of the Eastern Cape, South Africa	Keletso Mopipi, Kevin P Kirkman and Craig D Morris	62
16:15-16:20	The long-term effects of stocking rate and animal type on veld condition	Kwezi Booï and R Mmapula Botlhoko	63
16:20-16:25	Extreme grazing pressure as an additional treatment in the long term grazing trial at Adelaide	Pieter W Conradie, Craig Trethewey and Theunis M Morgenthal	64
16:30-18:40	Grassland Society of Southern Africa Annual General Meeting (Agenda at end of Parallel Session B)		
PARALLEL SESSION B			
Rehabilitation of Mined Areas (Session Chair: Justin C O du Toit)			
08:30-08:50	Re-vegetation strategies of cover soils and coal discard material	Wayne F Truter, Norman F G Rethman and	65



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		<i>Catharina E. Potgieter</i>	
08:50-09:10	Ecosystem reconstruction - reseeding native grasslands	Hallam F P Payne and Kevin P Kirkman	65
09:10-09:30	Salinity effects on seed germination of different forage grass species	Bernice Nell , I C Madakadze, Wayne F Truter and Norman F G Rethman	66
09:30-09:35	Live topsoil placement vs stockpile placement - a biodiversity issue	Flip (P) J J Breytenbach , J van der Walt and W van Zyl	67
09:35-09:40	Current rehabilitation practices on Anglo opencast collieries	Gus N le Roux	67
09:40-10:00	The influence of cattle manure and grass roots in improving the bulk density and the fertility of compacted mine soils	Poloko E Mosebi , Wayne F Truter, Norman F G Rethman and I C Madakadze	68
10:00-10:20	Evaluating the different stocking rates of a steer production system, on irrigated Tall fescue (<i>Festuca arundinacea</i>) pastures, as a management tool for rehabilitated mine land	Poloko E Mosebi, Adriaan W Jonker , Wayne F Truter, Norman F G Rethman and W A van Niekerk	69
10:20-10:25	The impact of mine dump pollution on vegetation in the Kombat area, central Namibia	Isaac Mapaure , P M Chimwamurombe, B S Mapani and F Kamona	70
10:30-11:00	TEA		
Rangeland Assessment and Monitoring (Session Chair: Clement F Cupido)			
11:00-11:20	Modification of a method to estimate grazing capacity for rangelands in Zimbabwe's resettlement scheme	Trust Chinuwo , P H Mugabe, E Timpong-Jones and S D Mulugeta	53
11:20-11:40	Reliability of three methods of botanical survey for monitoring purposes	Alan D Short, Malenyalo Bathatswi and Doreen Sithole	54
11:40-12:00	A comparison between two degradation indices: visual assessment and transect sampling	Cornelius G Tichagwa and Sikhhalazo Dube	54
12:00-12:05	Grassland vegetation of Platberg, Eastern Free State and potential climate change influences on community structure	Robert Brand , Leslie R Brown and P J du Preez	55
12:05-12:10	Do plant community distribution patterns differ between the protected areas of the W National Park of Benin (Western Africa) and the land use area adjacent to the park?	Laurent G Houessou, Madjidou Oumorou, Valentin Kindomihou, Marcel Houinato and Brice Sinsin, presented by Yessoufou Kowiyou	56
12:10-12:30	Changes in veld condition in East Griqualand: the reliability of historical datasets	Alan D Short , Thembisile V Mabuza, Olga Mabelebele and Basanda X Nondlazi	57



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12:30-12:35	Vegetation monitoring and veld condition trends at Campagna livestock production systems	Tanki Thubela and M Chris Mbuti	57
12:35-12:40	A framework for rangeland monitoring and management within the arid and semi-arid rangelands of the Eastern and Northern Cape	Marisa Coetzee	58
13:00-14:00	LUNCH		
Bugs, Flowers and Trees: Appreciating Rangeland Diversity (Session Chair: Leslie R Brown)			
14:00-14:20	Leafhoppers (Hemiptera: Cicadellidae) associated with the Grassland Biome of South Africa	Michael Stiller	59
14:20-14:40	Harpagophytum procumbens medicinal plant research in the North West Province	Anuschka Barac	60
14:40-14:45	Grootfontein Herbarium - moving into the 21st century	Loraine van den Berg	60
14:45-14:50	Host specificity in a savanna mistletoe, <i>Viscum rotundifolium</i> (Viscaceae)	Desale Y Okubamichael, Megan E Griffiths and David Ward	61
15:00-15:30	TEA		
Ecology of Invasive Plants (Session Chair: Luthando E Dziba)			
15:30-15:50	Effect of <i>Acacia mearnsii</i> removal on the water table in the Tsomo Valley, Eastern Cape, South Africa	Hlonipani P M Moyo and Sikhhalazo Dube	72
15:50-15:55	Detecting and monitoring bush encroachment using remote sensing techniques	M Girdline Phasha, P Shaker, C Munyati and Chris S Dannhauser	72
15:55-16:00	Bush encroachment in Ithala Game Reserve	Paul J Gordijn and David Ward	73
16:00-16:05	An approach to the development of ecologically sound control methods for <i>Dichapetalum cymosum</i> - a proposal	Gilbert (H) Pule	74
16:05-16:10	Herbivore loads on native and exotic <i>Acacia</i> trees: a proposal	Tiffany Pillay and David Ward	74
16:10-16:15	Do grazing animals facilitate germination potential and seedling recruitment of woody plants?	Julius T Tjelele	75
Annual General Meeting of the Grassland Society of Southern Africa (Session Chair: Pieter W Conradie)			
16:30-16:35	Welcome	Pieter W Conradie	
16:35-16:45	<i>Introductory Presentation:</i> Demographic and professional characteristics of the 2008 Grassland Society of Southern Africa congress delegates	Sikhhalazo Dube, Bethwell Moyo, Thulani Tshabalala, Hlonipani P M Moyo and Mota S Lesoli	76
16:45-16:50	Present and apologies	Pieter W Conradie	
16:50-16:55	Additions to and acceptance of the agenda	Pieter W Conradie	
16:55-17:00	Approval of the minutes of 23 July 2008	Pieter W Conradie	
17:00-17:10	Matters arising: Congress 45 (2010)	Klaus Kellner	
17:10-17:20	Treasurer's report	Justin C O du Toit	
17:20-17:30	Scientific Editor's report	Freyne J du Toit	
17:30-17:40	Publication Editor's report	Alan D Short	
17:40-17:50	Website Editor's report	Anuschka Barac	
17:50-18:00	Public Relations Officer's report	Sikhhalazo Dube	
18:00-18:10	Professional Affairs Committee report	Leslie R Brown	



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18:20-18:25	Election of Office Bearer: Vice President	<i>Pieter Conradie</i>	<i>W</i>
18:25-18:30	Election of Office Bearer: Additional Member	<i>Pieter Conradie</i>	<i>W</i>
18:30-18:35	General: Congress 46 (2011)	<i>Marisa Coetzee</i>	
18:35-18:40	Date of next meeting	<i>Pieter Conradie</i>	<i>W</i>

**THURSDAY 23 JULY 2009**

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PARALLEL SESSION A			
Plant Physiology and Chemistry (Session Chair: Desale Y Okubamichael)			
08:30-08:50	Comparative analysis of silicification patterns in some tropical woody fodder species (<i>Stereospermum kunthianum</i> , <i>Adansonia digitata</i> , <i>Khaya senegalensis</i> , <i>Tamarindus indica</i> , <i>Sclerocarya birrea</i>) from the W National Park peripheral grasslands in sudanian Benin (Western Africa)	Valentin Kindomihou , G Gouwakinnou, A Houngnon, W Gruber, J Lejoly, Brice Sinsin and P Meerts	78
08:50-08:55	Morphological study of the leaves of two Karoo shrub species	Paul J Malan and Hennie A Snyman	79
08:55-09:00	Inductiveness of chemical defence in <i>Acacia karroo</i> trees	Mfundo Macanda and Sikhhalazo Dube	80
Rangelands: Communal and Developing Areas (Session Chair: M Chris Mbuti)			
09:00:-09:20	Livestock grazing distribution pattern in the communal rangeland, Amakhuze Tribal Authority, Eastern Cape	Mota S Lesoli , Sikhhalazo Dube, N Monde and Clement Ratsele	81
09:20-09:40	Seasonal habitat use and movement patterns of cattle grazing different veld types in the communal areas of the Eastern Cape, South Africa	Bethwell Moyo , Sikhhalazo Dube, Mota S Lesoli and P J Masika	82
09:40-10:00	Assessment of livestock feed resources use patterns in the low rainfall and aluminium toxicity prone areas of Rwanda	Mupenzi Mutimara and Terry M Everson	82
10:00:10:20	Effect of detannification methods on <i>Acacia nilotica</i> and hay intake, digestibility and nitrogen retention in Matebele goats	Thulani Tshabalala , Sikhhalazo Dube, E Chivandi, J L N Sikosana and T Senda	83
10:20-10:25	"Is die donkie nog is 'n wonderlike ding?" – Perceptions from Namaqualand	Clement Cupido	F 83
10:25-10:30	Unplanned veld fires: an increasing challenge for resource poor farmers	Basanda Nondlazi and Mudi Ligege	X 84
10:30-11:00	TEA		
Degradation and Restoration: From Plant to Landscape (Session Chair: Sikhhalazo Dube)			
11:00-11:20	The potential of <i>Secale africanum</i> and others for restoration of the Roggeveld-Renosterveld	Nelmarie Saayman , Hannes (J) Botha and Clement F Cupido	C 85
11:25-11:30	The implementation of selected technologies to enhance the restoration of indigenous tree species in the deforested riparian areas in the Mapungubwe National Park, South Africa	Yolandi Els and Klaus Kellner	85
11:35-11:55	Physical land deterioration and soil loss characteristics as the ultimate indicators of rangeland degradation in the communal rangeland, Eastern Cape	Mota S Lesoli , Sikhhalazo Dube and N Monde	86
11:55-12:15	The role of protective plants for the survival of <i>Portulacaria afra</i> in Xeric Succulent Thicket	Neels (C) H de Ridder	87
12:15-12:20	Heavy metal pollution of grass along provincial roads in the Limpopo Province	Chris Dannhauser , K M Masenya, K M Mokonyane and L L Mohuba	S 88



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13:00-14:00	LUNCH		
WORKSHOP: Role of Multi-Disciplinary Collaborative Projects in Communal Natural Resources Management (Session Chair: Kedibone B Chueu)			
14:00-14:20	Contribution of maize stover to the livestock feed budget in Zimbabwe's initial resettlement schemes	Trust Chinuwo, P H Mugabe, E Timpong-Jones and S D Mulugeta	91
14:20-14:40	Developing a collaboration model for research: A case of the Limpopo crop-livestock system	A Edward Nesamvuni, J J Mkhari and Anthony Whitbread	91
14:45-14:50	Sustainability in Communal Socio-Ecological Systems (SUCSES): Establishing a linked rural livelihoods and environment monitoring system in the lowveld	Wayne Twine, Lori Hunter, Mark Collinson and Barend Erasmus	92
14:50-15:10	The social dynamics of rangeland and livestock systems in the communal landscape of Sekhukhune District in Limpopo province, South Africa	Gerrit T Rootman and Naftali M Mollet	93
15:10-15:30	Challenges for emerging crop and livestock farmers in Limpopo province – further reflection	Neil D MacLeod, Cam K McDonald, Anthony Whitbread and Frits P van Oudtshoorn	94
15:30-16:00	TEA		
WORKSHOP: Role of Multi-Disciplinary Collaborative Projects in Communal Natural Resources Management (Session Chair: Kedibone B Chueu)			
16:00-17:00	Discussion	Facilitator: Kedibone B Chueu	
PARALLEL SESSION B			
WORKSHOP: Grassland Science Research Priorities (Session Chair: Wayne F Truter)			
08:30-08:35	Welcome and introduction	Alan D Short	
08:35-08:45	Social and historical overview	Tony (A) R Palmer	
08:45-08:55	Discussion	Facilitator: Wayne F Truter	
08:55-09:10	Priority brief for agricultural research in South Africa	Gontse Morakile and Kedibone B Chueu	96
09:10-09:15	Questionnaire results	Alan D Short	
09:15-09:25	Discussion	Facilitator: Wayne F Truter	
09:25-09:55	Breakaway groups	Facilitator: Group Chairs	
09:55-10:05	Report back from breakaway groups	Group Chairs	
10:05-10:15	Discussion	Facilitator: Wayne F Truter	
10:15-10:25	Recent knowledge gaps review	Alan D Short	
10:25-10:30	Discussion	Facilitator: Wayne F Truter	
10:30-11:00	TEA		



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WORKSHOP: Grassland Science Research Priorities (Facilitator: Wayne F Truter)			
11:00-11:10	Identification of 3-5 major focus areas for further discussion	Facilitator: Wayne F Truter	
11:10-11:15	Identification of major input factors that need to be considered for all focus areas	Facilitator: Wayne F Truter	
11:15-11:55	Breakaway groups	Facilitator: Group Chairs	
11:55-12:35	Report back from breakaway groups	Group Chairs	
12:35-12:55	Discussion	Facilitator: Wayne F Truter	
12:55-13:00	Wrap up and way forward	Facilitator: Wayne F Truter	
13:00-13:05	Thanks and closing	Alan D Short	
13:00-14:00	LUNCH		
Wildlife Management in a Changing Landscape I (Session Chair: Mike D Panagos)			
14:00-14:20	What is unacceptable animal herbivore impact in our National Parks?	Rina (C) C Grant and Mike J S Peel	97
14:20-14:40	Medium term changes in the grazing capacity of Rolfontein Nature Reserve	Vhalinavho P Khavhagali	97
14:40-15:00	Population changes of <i>Sclerocarya birrea</i> subsp. <i>caffra</i> between 2001 and 2008 in the Kruger National Park, South Africa	Chantal V Helm, Edward T F Witkowski, Laurence Kruger, Michele Hofmeyr and Norman Owen-Smith	98
15:00-15:05	Big trees and elephant in protected areas adjacent to the Kruger National Park	Mike J S Peel, John M H Peel and Jakes (A) F Jacobs	99
15:05-15:10	Habitat composition and behaviour of chacma baboons in natural and commercial forestry areas in Mpumalanga	Leslie R Brown and H Marais	100
15:10-15:15	Developing an integrated wildlife disease surveillance and monitoring system for the Greater Kruger National Park	Johan Oosthuizen, Antje J Bartkowiak-Higgo and Leslie R Brown	100
15:15-15:20	Dietary fibre in zoo animals	Khanyisile R Mbatha	101
15:30-16:00	TEA		
Wildlife Management in a Changing Landscape II (Session Chair: Mike J S Peel)			
16:00-16:20	Investigation of wildlife numbers on different ranges condition on the Bijar protected area, western Iran	Serveh Hosseini and Abbas Imani	102
16:20-16:40	The nature and extent of game farming and hunting in the North West Province	Willem Boshoff	102