

REGIONAL NEWS

KwaZulu-Natal

Pasture Tour

A very successful pasture tour, organised by GSSA, SASAS and the Pasture Association, was held in the KZN Midlands from 19 to 21 August. Nine dairy farms and Cedara Research Station were visited. The farms visited are some of the leading dairy farms in the province and ranged from high input (TMR) through medium input (PMR) to low input pasture based systems. The production of high quality maize silage was also seen.

Over sixty people from all over the country participated in the tour, and positive comments have been heard all round. Much discussion was held over the merits of the various dairy systems and pasture management. The general conclusion was that it is a matter of "horses for courses".

Thanks and congratulations to the organisers.



Above: - Silage: discussing high quality silage at the pit face.



Above - Discussion: Bryan Mappeldoram in discussion with other tour participants in a field of hybrid ryegrass.

Left - Planters: viewing planters for over sowing ryegrass into kikuyu

Prestige Dairy Symposium

A successful dairy symposium, 'Dairy Feeding Strategies Maximise your Profits!' was held at Cedara in KwaZulu-Natal on 12 September. It was attended by 178 registered delegates and was co-hosted by the GSSA, KZN Branch of SASAS, the Pasture Association and the KZN Branch of the MPO.

The aim of the day was to provide dairy producers with the latest technology on feeding the dairy herd, and to allow

discussion by farmers, advisors and other specialists. Dr Neil Miles, a researcher and manager with the KZN Department of Agriculture & Environmental Affairs, chaired the symposium. Prof. Kevin Kirkman of the University of Natal started off the day with a review of the role improved pastures in the dairy system. He looked how pastures fit into the system given the high input costs in relation to the income received from milk sales, and questioned some of the advice that dairy farmers are receiving on pastures at present.

John Evans, a well-known dairy feeds consultant in KZN, continued with a presentation on silage, and how this feed can be used to fill the fodder gaps that result from changes in pasture production over the season. In addition, silage can provide an economical base for TMR feeding systems. Trevor Dugmore, a researcher from the KZN Department of Agriculture & Environmental Affairs, continued with a talk on Concentrates in Dairy Systems, and how these are used to cost-effectively increase milk production. Concentrates also improve the general condition of animals which can have positive spin-offs for aspects such as fertility and cull value.



Dairy speakers:

*Trevor Dugmore (KZNSA),
Neil Miles (chairman, KZNSA),
Kevin Kirkman (University of Natal)
and John Evans (Dairy consultant).
Absent: Allan Penderis (Dairy consultant)*

The last talk was presented by Allan Penderis, another well-known KZN dairy consultant, who examined the financial aspects of different feeding systems and approaches. He analysed the costs of producing roughages and feeding dairy meal and what sort of returns could be expected from different feeding strategies at different times of the year.

Delegates were provided with bound copies of the proceedings of the day, and some copies are still available for anyone who was unable to attend. Contact Richard Hurt on rich@mindmap.co.za for more information.



Dairy audience: part of the 170 people who attended the dairy symposium.

North West

South Africa-China Joint Research Programme

Lorraine van den Berg

In 2003 South Africa and China reached an agreement for a joint research programme with regard to the selection and evaluation of drought-tolerant species mainly for the restoration of degraded and desertified arid areas in both countries. After some in-depth discussions and exchange of ideas it became evident that South Africa and China face similar problems regarding



The South Africa-China research group

rangeland degradation and desertification and that combating the degradation of arid rangelands is the common task for scientists of both countries.

Prof. Nan and a research team consisting of scientists and a government official visited South Africa in August this year. The visit included a tour to the Kalahari region of South Africa to give the visitors a general impression of the climate, different biomes, vegetation composition as well as management and land use practises in the area. During the tour the focus was mainly on restoration technologies carried out in the region, and especially the different species used in the restoration treatments. The problems of bush encroachment and the eradication thereof were also discussed and the tour included a visit to sites where the invader bush species were removed. The visitors indicated that they found the tour interesting and helpful as they experienced things they have only read in textbooks up to now. In a last round table discussion a very

enthusiastic team finalized the details of the research programme. In the future a team from South Africa will undertake a similar visit to China and hopefully come back with a bag full of ideas.



The Chinese visitors taking a better look at South African vegetation

Mpumalanga Lowveld & Eastern Limpopo

SOUTH AFRICAN ENVIRONMENTAL OBSERVATION NETWORK FOR THE LOWVELD

by Johan Pauw and Mike Peel

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SAEON's first observation area identified

The South African Environmental Observation Network (SAEON) Advisory Board and its Technical Steering Committee agreed to the development of a first observatory or node in the Lowveld. The Lowveld was selected because it is believed that building on the extensive long-term research programmes of many research organisations, both in and adjacent to the Kruger National Park, will quickly bear fruit demonstrating the value of SAEON. In addition the Savanna Biome is globally underrepresented and the Lowveld provides major opportunities to compare across different land-uses.

This first SAEON Node must be designed to meet the objectives of SAEON, which are to:

- * Offer leadership in long-term data systems

- * Support long-term observations on crucial and missing variables
- * Archive long-term data (own & other)
- * Make long-term data accessible
- * Broker and partner long-term data
- * Integrate long-term data
- * Package long-term data
- * Secure the SAEON system and long-term data collections
- * Communicate with local and international stakeholders
- * Provide a platform for capacity building, outreach and education

SAEON's Technical Steering Committee has provisionally identified a limited set of thematic issues of high importance to both ecosystem function and human wellbeing in South Africa. They are, in random order, water, soil/sediments, carbon/nutrient cycles, biodiversity, disturbance regimes and climate/atmosphere. Associated with a node will be a set of observing facilities, consisting of at least one core site, several affiliated sites, and a significant number of sample locations (eventually in the order of 100's).

At least one of the affiliated sites should be an experiment contrasting treatment within an experimental site, or between the experiment and the core site.

The design of SAEON combines relevant international approaches such as the United States Long-Term Ecological Research (LTER) Network, the National Ecological

Observatory Network (NEON) and the Global Terrestrial Observation System (GTOS). SAEON is receiving tremendous support from the research community and a range of science institutions, government departments and private sector organisations. These are all represented on SAEON's advisory structures, both of which are fully functional and making good progress.

Limpopo

RANGELAND RELATED RESEARCH PROJECTS IN LIMPOPO PROVINCE

The following projects are being conducted by members of the University of Venda in collaboration with the Department of Agriculture in the Limpopo Province:

1. An Assessment of the Impact of Fire on Vegetation in the Arid Sweet Bushveld of the Limpopo Province.
2. Calibrating a Disc Pasture Meter for Arid Sweet Bushveld at Mara Agricultural Development Centre.
3. An Investigation into the Influence of Tree Density on the Grass Sward in the Savanna Biome of the Limpopo Province.
4. Calculating Optimum Sample Size for the Application of the BECVOL-Model (BECVOL: Biomass Estimates from Canopy Volume) in Arid Sweet Bushveld at Mara Agricultural Development Centre.
5. Calculating Grazing Capacity of Rangeland in Sourish Mixed Bushveld, Limpopo Province.
6. An Assessment of Methods to Control Alien Plants in Riparian Zones of the Luvuvhu River Catchment.
7. Assessing Rangeland Management strategies in Sourish Mixed Bushveld, Limpopo Province.

The Mopane Research Group of the University of the North is currently hosting two postgraduate students of the University

of Wageningen in the Netherlands. Ms Lenneke Knoop and Ms Debbie Otto will spend the next three months studying the feeding ecology of kudu in the mopani veld of the Messina Experimental Farm. Their study visit forms part of a research partnership between Prof Dirk Wessels and Mr Martin Potgieter (members of the Mopane Research Group), Mr Cornelis van der Waal of the Mara Research Station and Dr Fred de Boer of the Tropical Nature Conservation and Vertebrate Ecology Group, University of Wageningen.

Free State

Cactus pear research and development at the University of the Free State

Cactus pear research and development in South Africa has taken a major step forward with the formation of the **Prickly Pear Working Group (PPWG)** at the University of the Free State in June 2002.

The choice of "prickly pear", as opposed to "cactus pear" in the name of the working group is based on the familiarity of the former name to the general public and amply demonstrates the commitment of PPWG to serve the larger South African community in cactus pear development.

The founder members of the working group are all experts in a broad spectrum of disciplines, all of which have a definite point of contact with cactus pear. The persons currently making up the working group and their fields of expertise are:

- Co-ordinator: Prof Maryke Labuschagne

- (Plant Breeding)
- Prof Wijnand Swart (Plant Pathology)
- Prof Schalk Louw (Entomology)
- Prof Seef Pretorius (Agronomy)
- Prof H O de Waal (Animal Nutrition)
- Prof Hennie Snyman (Grassland Science)
- Prof Gary Osthoff (Food Science)
- Dr Chris Viljoen (Plant Molecular Biology)
- Dr Herman Fouché (Grassland Science)
- Dr Leon van Rensburg (Soil Science)

Namibia

1. A very successful 7th Namibian Rangeland Forum was held recently (7-11 July 2003) in the #Khoadi /Hoas (Elephant Corner) Conservancy in the Kunene Region, north-western Namibia, hosted by the Desert Research Foundation of Namibia and the Grootberg Farmers' Union. As its name indicates, this is where the remaining 200-odd free-ranging desert elephant have their "head quarters". In fact, the communal camp site was located on the banks of the river used regularly by the "groot voete" to transverse the Grootberg area, including during the Forum, but unfortunately always at night.

The topic of this year's Forum was "From Science to Implementation", focusing on the role of 3 UN conventions in Namibian rangeland matters. About 80 people listened to presentations by:

Bertus Kruger: Applying the Convention to Combat Desertification (UNCCD) to support rangelands

Sem Shikongo: Applying the Convention on Biodiversity (UN CBD) to support rangelands and

Dr Mary Seely: Applying the Framework Convention on Climate Change (UNFCCC) to support rangelands, the main topic of this year's Forum.

In addition, there were a number of related presentations, by:

- * **Ibo Zimmermann:** Synergy between student training, participatory research and community service contributing

A reasonable support base already exists for the activities of PPWG. This includes a germplasm collection of 40 cultivars that has already been established by the UFS on a farm outside Bloemfontein, numerous farms with well-established cactus pear plots in the vicinity of Bloemfontein and bursary funding for specific postgraduate projects on cactus pear. Furthermore, Prof Wijnand Swart, a group member, is also the Sub-Saharan representative of the FAO International Network for Technical Cooperation on cactus pear, known as CACTUSNET-FAO.

towards natural resource management

- * **Axel Rothauge:** Rangeland resources assessment with satellite imagery: an operational tool for national planning in Namibia
- * **Pieter Krone:** Support by extension services to "affirmative action" and newly resettled farmers
- * **Hartmut Koelling:** Resting of rangelands in the northern communal areas, and a number of practical sessions, during which scientists had the opportunity to interact with practitioners and to demonstrate their experimental / monitoring methods.

An executive summary will follow as soon as the proceedings have been published.

2. On 6 and 7 August 2003, the Agricultural Scientific Society of Namibia held its 10th bi-annual congress in Windhoek, with the topic: "Namibian Agriculture in a variable and changing climate", with special significance to rangeland managers. One guest speaker, Dr Bob Scholes, addressed Congress on "Climate change and Namibian agriculture", while the other, Dr P Stoermer, addressed Congress on "Ozone depletion and protection".

In addition, there were presentations on drought monitoring (Dr Louis du Pisani), the potential of camels in Namibia (Carol Reuter), genetic characterization of indigenous goat breeds (Jacque Els), the Namibian Lamb Meat industry (Diane Mueseler), two contributions on strategic

marketing (Samuel M'Bai), horticultural production (S Burger), sensory properties of *Tylosema esculenta* (Diane Mueseler), the influence of stocking rate and cattle frame size on bush density and grass species composition (Bessie Bester), grass species response to fluctuating rainfall (Ben Strohbach), bush density data analysis (Marina Coetzee), an update on the Bush Encroachment Research, Monitoring and Management Project (Nico de Klerk) and how to write research proposals and to get

them funded (Axel Rothauge), as well as four separate contributions giving feedback on BIOTA = Biodiversity Monitoring Transect Analysis in Afirca (Hans-Juergen Buss, Ute Schneiderat, Ute Schmiedel, Thomas Falk).

These contributions emphasize the importance of sustainable rangeland management to Namibian agricultural producers, 90% of whom depend on natural rangelands. A summary will be submitted as soon as the proceedings have been published.

East Africa

Important information from Uganda

There are two professional organisations that are engaged in grassland, forage and livestock development activities, research and information dissemination.

The Uganda Pasture Network (UPANE) was established in 1987. Prof E N Sabiiti is its Chairman. Membership includes scientists, policy makers, farmers and students. They

meet to discuss issues in pasture research and livestock production. They also organise seminars and field days for farmers. The next meeting is planned for Dec 2003 and it will be a field day for farmers in the Peri-Urban Dairy Production systems.

Another is Uganda Animal Production Society which was formed a few years ago and addresses livestock nutrition and production. Membership is similar to those in UPANE except this tends to emphasize scientific approaches.

The next issue will focus on Kenya and Tanzania.

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Regional representatives have not been identified for: **Northern Cape**, **Mozambique**, and **Zimbabwe**. If anybody from these areas would be prepared to co-ordinate news from their region, please contact the editor Graham Peddie, peddieg@dunrs.kzntl.gov.za