

*SOIL SCIENCE
SOCIETY OF SOUTH
AFRICA*



NEWSLETTER
No. 96

November 2013

SSSSA COUNCIL/GVSA RAAD: 2013-15

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The SSSSA does not necessarily agree with opinions expressed in this newsletter.

Die GVSA onderskryf nie noodwendig die menings van bydraes tot sy nuusbrieff nie.

MESSAGE FROM THE PRESIDENT/ **BOODSKAP VAN DIE PRESIDENT**

Beste kollegas/*Dear colleagues,*

Ons is in 'n dinamiese fase. Die vier vakverenigings neem nou die vorm van 'n akademiese fakulteit van wetenskappe aan. Bestuur en administrasie word saamgevoeg vir effektiwiteit terwyl die vakinhoud uniek bly en afsonderlik ontwikkel word. Met die eerste oogopslag het dit baie bedreigings ingehou. Dit het herriner aan die verandering na 'n gesamentlike kongress. Verskeie vrese is ge-opper, waarvan die belangrikste die vrees dat die dissipline (grondkunde) sal seerkry en selfs verdwyn. Die vrees is besweer en die reelings loop vlot, jaar na jaar. Daar is minder gevaar in verandering as wat gevrees word. Daar is eerder 'n gebrek aan dinamika.

We are in a dynamic phase. The four societies are now becoming similar to an academic faculty of sciences, whereby management and administration is combined for effectiveness while the scientific content of each stays unique and is developed separately. At first glance, this holds many challenges and fears, of which the greatest is that the discipline (soil science) will suffer and even disappear. These fears have been addressed and the arrangements are proceeding well. There is actually less risk in change than is feared, with rather a lack of impetus.

Samevoeging van die bestuur van die kongres is 'n geruime tyd terug gedoen en die oorskakeling na 'n opgegradeerde tydskrif het die geleentheid geskep om die structure en konstitusies te hersien en dit in dieselfde baan te plaas as die kongres. In kort, al die verenigings is nou vir beide die kongres en die tydskrif gesamentlik verantwoordelik via 'n sentrale struktuur, nie elkeen vir 'n deel nie. Soos van sentrale bestuur verwag word, is die vakverwante besluite uitgesluit. Die hoof fokus is dus logistiek en finansies van die kongres en die joernaal. Die logistiek is goed geolie en 'n gesamentlike administrasie kan lei tot 'n besparing en die gladde verloop van finansies.

Combining the management of the Congress has been done for some time now and the change to an upgraded journal has provided the opportunity to revise structures and constitutions along the same lines as for the Congress. In short, all the societies are jointly responsible for both the Congress and the journal through a central structure, not just each on its own. As can be expected of such an arrangement, scientific decisions are excluded. The main focus concerns logistics and the finances of the Congress and the journal. These logistics have been streamlined and a joint administration can lead to savings and the smoother running of financial aspects.

Grond is nou wêredwyd in die kollig met die Wêreld Grondweek in Oktober, Wereld Gronddag op 5 Desember en die Internasionale Jaar van Gronde in 2015. Hoe kan ons die meeste maak daarvan?

Soil is now in the spotlight world-wide, with the World Soil Week in October, World Soils Day on 5th December and the International Year of Soil in 2015. How can we make the most of this?

Groete/*Best wishes,*

Pieter le Roux
(051 401 2386; LeRouxPA@ufs.ac.za)

EDITORIAL/REDAKSIONEEL

The increasing attention being paid to soils world-wide, as mentioned in the President's Message above, can only be a good thing. In addition, the announcement recently by the Agricultural Research Council that it wishes to increase co-operation with South African Universities by establishing (and helping to fund) formal partnerships should also provide impetus for a wide range of agricultural research, wherein soil science will hopefully receive attention and advancement. As they say in advertising: "Watch this space!"

SA Council for Natural Scientific Professions (SACNASP)

To date, around 100 Soil Scientists have registered with SACNASP, which represents a significant proportion of the soil science community in South Africa. There are also several applications for registration in the pipeline. I am sure that all the registered soil scientists will take their responsibilities very seriously, especially in supplying specialist advice to multi-disciplinary environmental investigations.

Regards,

Garry Paterson
(012 310-2601; 083 556 2458; garry@arc.agric.za)

COUNCIL MATTERS/RAADSAANGELEENTHEDE

New Members: we welcome the following new SSSSA members:

Full Members: KN King, M Wuite, L Mudaly, ST Tshababala, LZ Poswa, B Ndhlovu, R Mudau, R Kumasamba, L van der Walt

Our membership is currently at 347, showing a good upward trend, which is good news for the future of the Society.

To all SSSSA Members: the SSSSA Council decided at its last meeting to give recognition to **members in the industry** for the best paper presentation at our annual Combined Congress. The winner will receive a silver medal and a cash award to the value of R2000. So make sure you prepare an oral paper for presentation at the next congress in Grahamstown!

***Aan al die GVSA lede:** die GVSA Raad het besluit om erkenning te gee aan lede uit die industrie vir die beste aanbieding tydens ons jaarlikse Gesamentlike Kongres. Die wenner sal 'n silwer medalje en 'n kontant bedrag van R2000 ontvang. Begin dus nou aan jou aanbieding werk vir die volgende kongres te Grahamstad!*

IN MEMORIUM

In August, **Dr Abel Botha** passed away. Abel was the longest serving SSSSA member, having been part of the Society since August 1953, less than 6 months after its founding. Thanks go to Hans Lombard for the following:

Dr Abel Botha (Pri Sci Agri), one of South Africa's foremost agricultural scientists with specific reference to fertilizer research, who made a marked impression on agriculture, died on August 29 2013 in Johannesburg from cancer. He was 81 years old.

He spanned 50 years' experience in soil mapping, fertilizer development and agricultural research. He was involved in both the academic and commercial soil science field.

After research done for the ARC's Institute for Soil, Climate and Water in Pretoria he was appointed Professor Honorér in the Department of Crop Production at the University of Pretoria.



During his involvement with the Institute he developed a practical method of irrigation for emergent farmers.

Abel joined the South African Fertilizer Society where he held the positions of agronomist, fertilizer adviser, manager agricultural services and technical director of the following fertilizer companies: Windmill, Fedmis, Bonus, Prima and Growing Power Organic Fertilizers. He was also a consultant to Kynoch and Omnia.

One of the highlights of his career was coordinator of a five year research programme between South Africa and the National Chung Hsing University of Taiwan.

He obtained his BSc Agric *cum laude* from the University of Pretoria and his DSc Agric from the same university. His doctorate was obtained in Holland.

He leaves his wife Annette, three sons (Danie, a doctor in Canada; Phillip and Abel), and a daughter, Marietjie, from a previous marriage, eight grandchildren and three stepsons Stephan, Tian and Johan.

APPOINTMENTS/AANSTELLINGS

Martin Fey has been appointed as extraordinary professor in Soil Science in the Department of Plant Production and Soil Science at the University of Pretoria. He is currently involved in a WRC feasibility study on the use of irrigation as part of a long-term neutralized acid mine drainage management strategy in the Vaal Basin (WRC Project no. K5/2233) and also post-graduate training at UP.

New Soil Scientist for SASRI

The SA Sugarcane Research Institute was pleased to welcome their new Assistant Research Officer, **Lwazi Poswa**, into the Soil Science section in August this year. Lwazi hails from East London and obtained his BSc Agric in Soil Science at the University of Fort Hare. He is currently registered for his MSc in Soil Science at the University of KwaZulu-Natal, using MIR to estimate P sorption in KZN soils. Lwazi is already up to his elbows in both the lab and the field at SASRI, and we look forward to sharing his successes in the fields of soil fertility and crop nutrition.

AWARDS/TOEKENNINGS

Here are photos of the winners of the SSSSA awards at the latest Eskom Expo for Young Scientists (28-30 September 2013):

1. SENIOR – Pieter Brand (Paul Roos Gymnasium, Grade 9): "The effect of different types of fertilizer applications on the growth patterns of oats"



2. JUNIOR – Helga Claasen (Laerskool Pietersburg, Grade 6): "Fertilizer or manure"



SOIL SCIENTISTS ABROAD/GRONDKUNDIGES OORSEE

Global Soil Map Conference

South African attendance at the first **Global Soil Map Conference** (which was held in Orléans, France, from 7 to 9 October 2013) included **Liesl Wiese** (ARC-ISCW) and **Dr Andrei Rozanov** (Stellenbosch University), both of whom gave oral presentations. Liesl's presentation was entitled "Defining digital soil mapping (DSM) rules for soil bulk density mapping: Multi-scale analysis and field verification of legacy data", which was well received. Dr. Rozanov presented on soil information collection and dissemination entitled: "Open-access publishing to expand global soil knowledge and advance global soil mapping efforts" to promote the publication of soil information not generally accepted by mainstream journals.

The Conference was supported by the International Union of Soil Sciences and various leading research and government institutions. The primary focus of the conference was to inform the soil science community about the Global Soil Map project and widen the participation of interested parties/entities in bringing the local information to a global audience to solve some of the world's most pressing environmental challenges. The Global Soil Map consortium is aimed at producing a fine (100 m) resolution global map of soil properties, including texture, bulk density, carbon content and pH, using state-of-the-art and emerging technologies for digital soil mapping and predicting soil properties from legacy data. Interpolation techniques and functionality options will be included to improve decisions in a range of global issues like food production, climate change and environmental degradation.

South Africa was the only Sub-Saharan country represented at the conference and further discussion will be held to determine both Africa's and South Africa's potential future roles in the Global Soil Map project. A proposal was discussed to form a Southern Africa node for the Global Soil Map initiative with ARC-ISCW as a lead institution.

CONGRESSES/KONGRESSE

COMBINED CONGRESS

The next Combined Congress will be held in the Eastern Cape from 20th to 23rd January 2014. The venue will be Rhodes University, Grahamstown. For all information, please go to the Combined Congress website (www.combinedcongress.org.za).

SSSSA Annual General Meeting/ GVSA Algemene Jaarvergadering

Venue/Plek: Combined Congress, Grahamstown/
Gesamentlike Kongres, Grahamstad

Date/Datum: Wednesday 22 January 2014/*Woensdag
22 Januarie 2014* (Time/Tyd: +/- 11h00)

Conferences

20th World Congress of Soil Science: 8-13 June 2014 on Jeju Island, Korea. The theme of the conference is Soils Embrace Life and Universe, and the congress is also a celebration of 90 years. The website of the 20th World Congress of Soil Science (WCSS) is www.20wcscs.org where you will find valuable information and announcements by the Organizing Committee. We cordially invite you to

join us and be part of the 20th WCSS. We are looking forward to seeing you on Jeju Island. For further information visit www.20wcss.org or e-mail wcss@20wcss.org

Deadline for Abstract Submission: October 31, 2013

Soil Change Matters: 24-27 March 2014 in Bendigo, Victoria, Australia. **Paper submissions close 31st October 2013.** We invite you to be part of this international workshop that will bring together scientists, policy makers and land managers in a unique workshop environment. Soils change in response to land use, land management and climate. Understanding the mechanisms and rates of change in fundamental soil properties, and their extent across the landscape, is critical for management of soil and land to ensure enduring productivity and provision of ecosystem services. For all information on the workshop themes, preliminary programme, registration, accommodation and paper submission please visit www.soilmatters.org

NEWS FROM FREE STATE UNIVERSITY

Die navorsings aktiwiteite in die natuurlike ekosisteem neem toe. Drie projekte is aktief en word oorweeg in die Krugerwildtuin. Die hidropedologie van een "Super site" nl die suidelike graniete is reeds gedoen deur George van Zijl. Hy oorweeg nou om ook die hele park weer te karteer op groter resolusie deur *Digital soil mapping* tegnieke te gebruik.

Daar is ook 'n projek aan die gang oor "*grazing lawns*". Daar is kolle waar die gras kort gevreet word en die diere oorbeweï die kolle gereeld. Tans dui die inligting daarop dat die kolle verryk word deur diere se mis en uriene en dat dit die gras se groei stimuleer. Die begin van die proses is volgens aanduidings gekoppel aan 'n nat kol. Die kolle word nat van reën en bly dan langer nat as gewoon. Die aanvulling is skynbaar terugvloei van water uit die hoër liggende geologie.

SASSO/SAGO

The South African Soil Surveyors Organization (SASSO) held its most recent field workshop near Derby, in North West Province, where, as usual, interesting soils in the area were studied and discussed for classification and land use implications.

The photo below shows some of the participants around one of the pits. Note the excellent size of the pit (so that lots of people can get in at the same time) as well as the ladder supplied for easy access!



The next SASSO workshop will be held in the Aliwal North area in November.

NEWS FROM SASRI

State-of-the-art instrumentation for SASRI's Fertilizer Advisory Service

For leaf analyses to be of value to growers, it is clearly important that analyses are undertaken speedily, and that analytical results include as many of the nutrients essential for crop growth as possible. To achieve these goals, the SASRI Fertilizer Advisory Service (FAS) has long made use of X-ray fluorescence spectroscopy. A particular advantage of this instrumentation is that it enables the simultaneous measurement of silicon and micronutrients along with macronutrients such as P, K and S.

The X-ray instrument in the FAS laboratory was in service for 15 years and has recently been replaced with a modern Rigaku X-ray spectrometer at a cost of about R2 million (see photo below). The new instrument will enable the analysis of a greater range of nutrients in leaf samples, with minimal turn-around time.

Contribution from Dr Neil Miles and Keith Collings, SASRI





Introduction

Following the formal inception of the Global Soil Partnership (GSP) which came about immediately after the endorsement of its Terms of Reference by the FAO Council in December 2012, the last few months have witnessed important developments of this initiative.

Soils are back on the agenda and the GSP partners are committed to making the best of this precious momentum in order to fully promote the sustainable management of soils.

This is the first issue of a newsletter which the GSP Secretariat intends to produce and disseminate at regular intervals to inform partners and other interested audiences about progress in the implementation of approved activities. Comments on the desirable contents of this type of concise and informal communication material are welcome and can be conveyed to the Secretariat by sending an email to GSP-Secretariat@fao.org.

I wish to invite all our partners and those who are not yet part of the GSP to join us in this new drive to promote healthy soils for a food secure world and a healthy planet. This newsletter should be a contribution, albeit modest, to give justice to the efforts done under the auspices of the GSP.

*Dr Moujahed Achouri, Director
Land and Water Division, FAO - GSP-Secretariat*

First Plenary Assembly

The first Plenary Assembly (PA) of the Global Soil Partnership was held on from 11 to 12 June 2013, at FAO headquarters in Rome. It was an opportunity for participants to provide fruitful guidance and to endorse a number of key steps towards effective implementation of the GSP.

The full report of this meeting in the different languages can be consulted on the GSP website at the following address:

<http://www.fao.org/globalsoilpartnership/highlights/detail/en/c/177933/>

Two significant milestones were achieved:

1. Adoption of complementary Rules of Procedure; and
2. Establishment of the Intergovernmental Technical Panel on Soils (ITPS) by appointing the 27 members, whose biopics can also be consulted at the above website.

The GSP Five Pillars of Action:

1. Promote sustainable management of soil resources for soil protection, conservation and sustainable productivity
2. Encourage investment, technical cooperation, policy, education awareness and extension in soil
3. Promote targeted soil research and development focusing on identified gaps and priorities and synergies with related productive, environmental and social development actions
4. Enhance the quantity and quality of soil data and information: data collection (generation), analysis, validation, reporting, monitoring and integration with other disciplines
5. Harmonization of methods, measurements and indicators for the sustainable management and protection of soil resources

World Soil Day (5 December) and International Year of Soils 2015

These key awareness-raising platforms on the importance of soils for food security, essential eco-system functions and sustainable development were endorsed by the 38th session of the FAO Conference in June 2013 (the PA of the GSP had also stressed their importance at its first meeting). At the time of writing, they were under consideration by the GA of the UN for formal approval. A special issue of this Newsletter may be prepared to advise on the outcome of related negotiations in the GA.

Regional Soil Partnerships

A launch workshop for the establishment of a Regional Soil Partnership in Central America and the Caribbean was held in Habana, Cuba from 30 September to 3 October 2013. A meeting: "Towards the European Soil Partnership" will take place during the Global Soil Week on 31 October 2013 in Berlin.

As regards Central Asia, following a second online consultation on: "towards a Eurasian Soil Partnership for food security and sustainable development" organized during the summer, a launch workshop is to take place in Moscow on 20 November 2013.

However, substantial efforts are still required by the interested partners in order to consolidate, or even initiate work towards the establishment and/or engagement in concrete joint activities of Regional Soil Partnerships in several other geographical areas.

HUMOUR

In case you need further proof that the human race is doomed, here are some actual label instructions on consumer goods:

On a Sears hair dryer: Do not use while sleeping.

On a bag of Fritos: You could be a winner! No purchase necessary - details inside.

On a bar of Dial soap: Directions: Use like regular soap.

On some Swanson frozen desserts: Serving suggestion: Defrost.

On a hotel-provided shower cap in a box: Fits one head.

On Tesco's Tiramisu dessert: Do not turn upside down. (Printed on the bottom of the box.)

On Marks & Spencer Bread Pudding: Product will be hot after heating.

On packaging for a Rowenta Iron: Do not iron clothes on body.

On Boots Children's Cough Medicine: Do not drive car or operate machinery.

On Nytol (a sleep aid): Warning: May cause drowsiness.

On a Korean kitchen knife: Warning: Keep out of children.

On a string of Chinese-made Christmas lights: For indoor or outdoor use only.

On a Japanese food processor: Not to be used to the other use.

On Sainsbury's Peanuts: Warning: Contains nuts.

On an American Airlines packet of nuts: Instructions: Open packet, eat nuts.

On a Swedish chain saw: Do not attempt to stop chain with your hands.

*At least I have never seen a notice next to a soil pit:
"Caution: soils make your boots dirty!"*

SOIL SCIENCE SOCIETY OF SOUTH AFRICA: MISSION

The SSSSA is a scientific society, which, in the interest of its members, promotes the advancement of soil science and soil technology as well as the responsible practising thereof by its members with the view to the long-term sustainable utilization of the environment in the interest of the community.

Aims

1. Promotion and protection of the professional status and prestige of soil science as a science and career.
2. Promotion and extension of the society.
3. Promotion of the standard of training of soil scientists and technologists.
4. Creation of opportunities for the free exchange of ideas on soil science and technology.
5. The obtaining and dissemination of knowledge, information and ideas having relevance to soil science by means of discussion and publication.
6. Promotion of contact between the society and other bodies with common or similar interests, both within South Africa and overseas.

GRONDKUNDEVERENIGING VAN SUID-AFRIKA: MISSIE

Die GVSA is 'n wetenskaplike vereniging wat in belang van sy lede verbind is tot die bevordering van grondkundige wetenskap en tegnologie, en die verantwoordelike beoefening daarvan deur sy lede met die oog op die lang termyn volhoubare benutting van die omgewing in belang van die gemeenskap.

Doelstellings

1. Bevordering en beskerming van die professionele status en aansien van grondkunde as 'n wetenskaplike beroep.
2. Bevordering en uitbouing van die vereniging.
3. Bevordering van die standaard van opleiding van grondkundige wetenskaplikes en -tegnoloë.
4. Skepping van geleenthede vir vrye gedagtewisseling oor grondkundige wetenskap en tegnologie.
5. Die verkryging en verspreiding van kennis, inligting en idees wat op grondkunde betrekking het by wyse van samesprekings en publikasies.
6. Bevordering van skakeling tussen die vereniging en ander liggame met gemeenskaplike of soortgelyke belange, beide in Suid-Afrika en in die buiteland.