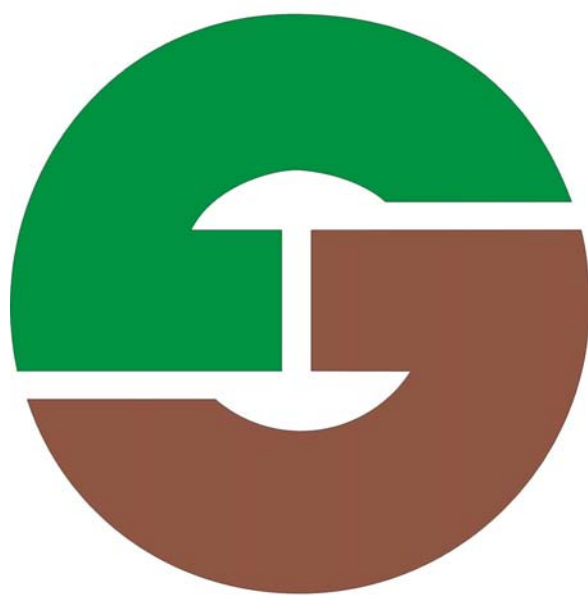


*SOIL SCIENCE
SOCIETY OF SOUTH
AFRICA*



NEWSLETTER

No. 89

May 2010

SSSSA COUNCIL/GVSA RAAD: 2009-11

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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

The year is progressing fast and it is almost time for the Soccer World Cup! It seems my life this year is divided into two parts: Before Soccer and After Soccer. I trust that you will join me in hoping that it will be a successful event.

Die jaar snel verby en dit is al amper tyd vir die Sokker Wereldbeker! Dit wil voorkom asof my lewe dié jaar in twee tydgleuwe verdeel kan word: Voor-Sokker en Na-Sokker. Ek vertrou dat u saam met my hoop dat dit ‘n suksesvolle toernooi sal wees.

I know I have been writing about this a lot, but it seems more and more that Soil Science is breaking from the Agricultural mould, by gaining its own standing as an environmental science. The compartmentalisation of science disciplines actually dates back to Plato (427-347 BC) winning an argument against Aristotle (384-322 BC), resulting in the fragmentation between disciplines that we see today. We are therefore breaking out of the mould set by Plato and giving Aristotle his way. Personally I believe that the advantages and opportunities are huge.

Ek weet dat ek gereeld hieroor skryf, maar dit lyk asof Grondkunde toenemend wegbreek uit die Landbou omgewing en sy eie status verkry in die gebied van omgewingswetenskappe. Die fragmentering van wetenskaplike dissiplines, soos ons dit vandag ken, dateer terug na ‘n argument wat Plato (427-347 BC) teen Aristotle (384-222 BC) gewen het. Ons sien dus ‘n wegbeweging van Plato se gefragmenteerde voorstelling na Aristotle se denkwys. Persoonlik glo ek dat dit besondere voordele en geleenthede inhou.

The above are some insights from a book “The Black Swan” by Nassim Taleb, which I am currently reading. He further makes the statement (it is actually the main point of the book) that most, if not all, progress is accidental and takes place in leaps and bounds (black swans) and not in small increments. (Another reason why I like the book is because he lists Soil Judges as “experts who are experts” - opposed to “experts who are not experts”.) And I believe that this is where research comes in. I think that it is literally re-search: continuously searching until you eventually make that great discovery - if ever. Some of us are lucky in this regard, others are not. That does not mean we should stop searching. The more we look in different places (searching, or researching), the more likely it is that we would become lucky.

Die bogenoemde is insigte uit die boek “The Black Swan” deur Nassim Taleb, wat ek tans lees. Hy maak verder die stelling (dit is eintlik die hooffokus van die boek) dat die meeste, indien nie alle vooruitgang toevallig is en vind hand oor hand en met groot spronge (“black swans”) plaas en nie in klein inkremente nie. (Nog ‘n rede waarom ek van die boek hou is dat Taleb Grondregters lys as “kundiges wat deskundiges is” teenoor “kundiges wat nie deskundiges is nie”). Ek glo dat dit is waar navorsing ter sprake is. Ek dink dit is letterlik her-soek: aanhoudend soek tot daar uiteindelik ‘n deurbraak is - indien ooit. Sommige vind sukses hiermee, ander nie. Dit

beteken egter nie dat ons moet ophou soek nie, want hoe meer ons soek (soeke of navorsing), hoe groter is die kans op sukses.

This is therefore my message to you: Create and use as many opportunities for research as possible! And these should not be confined to the boundaries set by Plato...

My boodskap aan u is dus: skep en benut soveel navorsingsgeleenthede as moontlik! En dit moet nie deur Plato se grense beperk word nie.....

On a lighter note: the combined congress that was held in Bloemfontein this year made a handy profit. My thanks to every one of you who made a contribution in this regard - especially the many sponsors we had.

Op 'n ligter noot: vanjaar se gesamentlike kongres te Bloemfontein het 'n stewige wins getoon. My innige dank aan almal se bydrae - veral ons onderskeie borge.

Lastly I want you to engage with the Society. Let us know where we can be of assistance. One of the opportunities, for example, would be to use the newsletter or web site to advertise job opportunities in your company (contact Garry in this regard). It is also an election year. Theo Dohse will soon be sending out a call for nominations of people to serve on the board of the society - start thinking who you can nominate.

Laastens wil ek hê dat u met die vereeniging moet kommunikeer. Laat weet ons waar die vereeniging van hulp kan wees. Een van die geleenthede is byvoorbeeld die gebruik van die nuusbrief of webwerf om werksgeleenthede te adverteer (kontak Garry in hierdie verband). Dit is ook 'n verkiesingsjaar. Theo Dohse sal binnekort nominasies vra vir lede om op die vereeniging se raad te dien – dink solank aan u nominasie.

Warmest regards/*Beste wense*

Cornie van Huyssteen

(051 401 9247; vhuystc.sci@ufs.ac.za)

EDITORIAL/REDAKSIONEEL

You will note that the newsletter is slightly different this time round. It was decided by Council that, in order to save on costs, we would no longer print or post a paper copy of the newsletter, but rather send it out by e-mail. (We will make a few copies to post to those members who don't have an e-mail address). This might not please everyone, but in these economic times, it probably had to happen. **However, please make sure that your e-mail address stays current**, and let the Secretary know if it changes (this will benefit you with all Society correspondence, not just the Newsletter!)

Secondly, unless you are living in a cave somewhere, you will be aware of the FIFA World Cup that starts on June 11th. What one perhaps doesn't consider is the small (but significant) role that soil science has played in ensuring its success. For instance, football is played on a grass pitch, which is laid on a soil base – so there's basic soil science right there! If one also thinks of all the associated infrastructure (roads, buildings, practice facilities etc) which have also been built, soils input was almost certainly required for each one of them, if only to ensure that construction doesn't take place on a vertisol or in a wetland!



Anyway, I have my tickets and am really looking forward to the tournament. Let the best team win!

Regards,

Garry Paterson

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COUNCIL MATTERS/RAADSAANGELENTHED

New Members: we welcome the following new SSSSA members:

SJ Dlamini, ML Fanana, A van der Merwe, Dr O Dikinya, Dr ME Moshia, Dr A Weigel, Dr IIC Wakindiki, MN Mushia, LO Nethononda, K Sirakalala.

Student Members: NN Buthelezi, NP Lukhehe, TJ Motsoeneng, LJ Nkuna, S Mashego, KJ Molepo, K Mosomane, PT Mahlokoane, L Matelele, L Mohlala, MT Makhua, T Mokase, JP Zwane, S Shigwambana, MP Dolamo, KC Phefadu, RI Thoka, T Nembudane, AS Dolo, MJ Raphala, MF Seola, MD Boshielo, LP Lekgoro, M Mahasha, B Schoonwinkel, NV Mothapo, B Mtshawu, GL de Villiers, MS Mufamadi, KJ Kgaje, RH van der Merwe, P Maluleke, WL Olivier, SW Buitendach, AJ van Jaarsveld, JB Sparrow, DP Phoofolo, HLD Minnaar, VT Thuyani, MJ Els.

It's really great to see that our membership now stands at an impressive 340, once again up significantly from the last Newsletter.

IN MEMORIAM

Norman Rethman

Norman Rethman, professor in Plant Science at the University of Pretoria, passed away suddenly in May. Although not a SSSSA Member, Norman was well known to many members of the Society and will readily be remembered for his friendliness and willingness to help others wherever he could. Our sympathies go to his family.

AWARDS/TOEKENNINGS

PhD Degrees:

At the April 2010 Graduation ceremony at the University of Pretoria, **Hester Janse van Rensburg** was awarded a PhD for her thesis: "Soil chemical and nutrient uptake dynamics of maize (*Zea mays* L.) as affected by neutralization and re-acidification after liming". Her promoter was Prof. Andries Claassens.

By die Mei 2010 gradeplegtigheid by die Universtieit van die Vrystaat, is 'n PhD-graad aan **Piet Nell**, van LNR-IGKW, toegeken vir sy tesis: "The primary salinity, sodicity and alkalinity status of South African soils". Sy promoter was Prof. Cornie van Huyssteen.

MSc

By UFS het **Ian Bothma** (On-field runoff and soil water storage on duplex soils at Paradys experimental farm), **Joseph Chimungu** (Comparison of field and laboratory measured hydraulic properties of selected diagnostic soil horizons), **Tesha Mardamootoo** (Evaluation of the phosphorus status of sugar cane soils in Mauritius using agronomic and environmental criteria), and **Nthatuoa Rantoa** (Estimating organic carbon stocks in South African soils) hulle MSc-grade ontvang.

BSc

Darren Bouwer en **Riaan van der Merwe** het hul B.Sc. Honneurs in Grondkunde by UFS verwerf.

Many congratulations to them all.

Congress Awards

At the recent Combined Congress in Bloemfontein, the following awards were made:

Best Oral Presentation by a researcher younger than 30: "Predicting streamflow from the soil map in the Weatherly catchment" – Johan van Tol (with P le Roux) **shared with:** "Soil erosion on a toposequence in Maputseng, Lesotho" – George van Zyl (with F Ellis & A Rozanov)

Best Oral Presentation by a researcher older than 30: "Prudent use of municipal sludge for agricultural production" – JG Annandale, E Tesfamariam, JM Steyn

Best Oral Presentation on innovative, new technology: "Technology application case study: using 3D mapper for soil survey analysis near Breyton, Mpumalanga" – HJC Smith, M Hensley, P le Roux, J van Tol.

Best Poster Presentation: "Nitrogen mineralization of sunhemp green manure and maize stover residue mixtures in soil" – J Odhiambo & J Ogola.

MEMBER MOVEMENTS/ LEDE BEWEGINGS

Dr ME (Edwin) Moshia has moved from the University of Limpopo and has been appointed as lecturer in Soil Science at the University of Pretoria.

MEMBERS OVERSEAS/LEDE OORSEE

Piet le Roux, Johan van Tol en Bataung Kuenene van UFS het ook meer gaan leer oor heuwelhang hidrologie by die European Geosciences Union se werksinkels in Vienna, Oostenryk. Nog 20,000 ander het saam geleer en nog 14,000 het saam aangebied. Die getalle veroorsaak dat die onderwerpe baie spesifiek is.

CONGRESSES/KONGRESSE

COMBINED CONGRESS

The next Congress will be in Pretoria from 17th to 21st January 2011. The first announcement will be sent out soon then you will be able to register on the congress website www.combinedcongress.org.za or contact Charmaine Sullivan at sullivanc@mweb.co.za.

New Zealand Soil Carbon Conference

The second New Zealand Soil Carbon Conference is being held in Wellington, NZ from the 15-17th of September 2010. We are pleased to offer participants a rich content of insightful keynote addresses, panels as well as intellectual and practical discussions. The wide variety of speakers will draw together the science and practical methods behind biological/carbon farming, and the benefits of building humus and soil carbon. This conference will address the challenges



facing many of us at this present time along with some ideas for change through innovation. The New Zealand Soil Carbon Conference brings together an unprecedented range and calibre of participants, offering a unique opportunity for attendees to socialize, network and exchange ideas with peers from across the cutting edge of agricultural and scientific communities. For more information please go to www.soilcarbonconference.co.nz or email Nicole@integritysoils.co.nz

MISCELLANEOUS/ALGEMEEN

CHRIS MACVICAR'S REMINISCENCES (PART 2)

(3) A DETAILED SOIL SURVEY FOR IRRIGATION

Lying between Calvinia and Ceres is the Tanqua Karoo described by Acocks as the driest part of South Africa. The Doringrivier, a large crystal-clear river, rises in the Cedarberg and flows north through the western TK to join the Olifantsrivier.

The alluvia of the occasionally flowing Tanquarivier tributary and of its tributary the Ongelukrivier, were the object of a survey by two teams in 1957 led by Jakob van Woerkom (a Japanese prisoner of war survivor and, later, Secretary of our Society) and Heinz Weber (later a Stellenbosch professor). A large alluvial plain near Die Bos below the Bloukrans Pass was the object of two survey teams in 1958 led by Mr van Woerkom and P. van der Merwe (Bob) Bruwer. The detailed (1:5000) soil survey project was known as the Aspoot Scheme, the name possibly deriving from podzol-bleached material as the river exits the Cedarberg. Under the leader, each team had two soil scientists, a land survey technician, a lab technician and field workers to prepare 8 ft (2.44 m) pits, or shallower on rock.

Piet van Biljon, a senior land survey technician, working from trig beacons, had previously set out survey beacons around the area that could be commanded by canals from the Doringrivier. These beacons were used by the teams' land survey technicians to start traverses picking up profile sites and physical features (valley sides, rock outcrops, stream banks) and to tie in the end of traverses.

Each day's activities were: A soil scientist using white metal flags mounted on heavy "bloudraad" would set out about 50 sites for soil pits. Each site was numbered on the flag and the scientist drew a small map of sites and physical features as he went along to guide the following land surveyor. Malcolm Hensley produced the most beautiful of these maps. The flags were set out 100 yards apart at right angles to the valley direction in a straight line using a compass. On reaching the end of the alluvium the flagger returned on a traverse 100 yards from the previous line and so on. The field workers dug their pits, usually preferring to work early so as to finish before breakfast. The second soil scientist and if there were enough pits, both soil scientists, would each describe about 25 profiles and take 4 - 6 samples per profile which the lab technician would analyse (pH, resistance). The land survey technician came behind picking up pit sites and other features.

Each profile received an irrigable value roughly as follows: A1 (no limitations, eg deep Hutton sandy clay loam), A2 (minor limitations, eg deep Hutton loamy coarse sand), B1 (a significant limitation but still irrigable, eg Kroonstad loamy sand 1 m thick on the B), B2 (generally not irrigable, eg Estcourt loamy sand) and C (eg shallow on rock). Important in determining irrigability was that large areas of land would be irrigated by many farmers posing far greater drainage and salinity hazards than would be the case with one farmer carefully irrigating a difficult soil in isolation. The foregoing data, and representative soil samples, were sent regularly to Pretoria where 1:5 000 profile type and irrigable value maps were compiled which, if the scheme were approved, would be used to place canals, roads and farm boundaries.



Dr MacVicar supervising tyre-changing somewhere in the drier parts of RSA

Only Mr van Woerkom had a car which he sometimes used to go to the Middlepos Hotel for Sunday dinner. Therefore a Saturday trip to Calvinia, 80 miles from Ongelukrivier (in the excellent $\frac{3}{4}$ ton Chev or not so good $\frac{1}{2}$ ton Studebaker - serviced at *Hantam motorwerke*) for provisions and library books was much looked forward to: a mixed grill lunch and listening to rugby in the café, Saturday night bioscope and back to camp late. No alcohol was allowed in camp. However, after 3 months we were allowed alcohol for a dinner party which started at 7 pm and ended with everyone asleep in bed at 8.30 pm.

(4): TUGELA BASIN SURVEY

Well-supplied with water on the transport route from Johannesburg to Durban, the Natal Town and Regional Planning Commission initiated projects to collect information useful for development in the Tugela Basin, *inter alia* vegetation (by Denzil Edwards)

and soils [by J.J. (Jaap) van der Eijk (Eyk) seconded from the International Training Centre for Aerial Survey, Delft, Netherlands, John de Villiers and CNM]. Dr Vos carried out the larger proportion of soil analyses at the Faculty of Agriculture, Pietermaritzburg.

148 photo-mosaics each roughly 1 m² at 1:20 000 scale (a few at 1: 33 000 scale) using 1948 aerial photography were used for the field work. A point in each of the four corners of a mosaic was identified such that the point occurred on the corner of each of the three mosaics adjoining that point. The positions of all the points on the ground were accurately determined and used in a rectification procedure to minimize distortions in the photo-mosaics. The rectified product provided the base for the final 100 000 map. Half the photographs covering a mosaic were used in its construction. The other half were loose photos giving extremely valuable 100% stereoscopic coverage.

Beginning in October 1958 a Key Area comprising Highland Sourveld, Tall Grassveld and Thornveld was chosen around Estcourt to establish, as far as possible, a map legend for the whole Basin covering some 28 000 km² and descending from 3 000 m to the coast. A Mr Gribnitz had written about the soils of the area in a manner unintelligible. What was going to be found beneath the soil surface was a complete unknown.

On the first day out together the three of us found every pit to have a dark grey-brown topsoil and a grey-brown loamy subsoil on a prismatic clay. This survey was going to be easy. Some time later on the farm Avalon just south-west of Estcourt, John de Villiers found a profile with a yellow-brown subsoil on a mottled deep subsoil. Little did we know that this presaged a host of different soils in the Basin. For the first few weeks in the Bergville area every profile seen by CNM was the one John had found. With Van der Eyk leading, we gave a number and Series name to each new soil we found and defined that number in terms of the horizons present, and whenever that sequence of horizons was found, we gave the site its number.

Dr van der Eyk worked from Estcourt and Dundee, John de Villiers (who also lectured) from Estcourt, Kranskop, Nkandla and Ingogo, and CNM from Estcourt, Bergville, Ladysmith and Newcastle. A pit in an unknown area was dug each day and sampled if significant. Using a vehicle, many sites were augered daily. Pits, auger sites and soil boundaries were marked and drawn on the mosaics in the field and the boundaries stereoscopically improved in the office. With hindsight, we would have benefitted greatly from a better appreciation of Dr Beater's experience of the effect of geology on soil type at the coast.

The survey finished early in 1962 and Dr van der Eyk left before a final report was completed. During the mid-1960's, Aircraft Operating Company (Technical Services), a member of the Hunting Group, led by Reg Loxton with Keith Gardiner, Frank Merryweather and CNM, carried out a project to identify the soils of the north-eastern Highveld for the fertilizer industry (Dr Piet Möhr was the leading figure) and to present the information in an easily understandable form. It soon became clear that

all the profiles seen could be placed in relatively few horizon sequences. Just as we'd done in the Tugela Basin, we defined these sequences, but instead of giving them numbers, we called them Forms.

At this time John de Villiers was investigating the use of the 7th Approximation for South Africa. The Steering Committee of the Tugela Basin survey then asked John and CNM to write the final report on the survey. It was decided not to use the 7th Approximation but rather the method of Forms used for the Highveld. Aiming to broaden the usefulness of the report, some soils not found in the Tugela Basin were included, for example Magwa Form found by CNM during a survey of eastern Pondoland by AOC Technical Services for possible tea, coffee and sugar cane production. Thus it was only in 1969, seven years after the fieldwork phase, that the final report appeared.

(This is the second installment of Dr MacVicar's look back at Pedology and soil science over the last 50-odd years; the final part of Dr MacVicar's reminiscences will appear in the next issue – Ed.)

Nuus uit die Wes-Kaap

Die Stellenbosch Grondkundebesprekingsgroep het hierdie jaar weer begin funksioneer onder leiding van **Dr. Ailsa Hardie** na 'n lang stilte. Onderstaande drie onderwerpe is afgehandel:

Willem Hoffman, 'PhD student in Dept Landbou-Ekonomie oor: "Die finansiële implikasies van kunsmis pryse op plaasvlak en winsgewendheid, met spesifieke verwysing van graan produksie in die Wes-Kaap".

Kobus Pienaar van Woolworths: The philosophy and aims of Woolworths' "farming for the future" initiative.

Tienie du Preez, 'n grondkonsultant van Somerset Wes: Kalk aanbevelings op kalkryke gronde.

Na aanleiding van o.a. Tienie se praatjie het daar nou 'n berig in die Landbouweekblad verskyn en Jan Lambrechts het hieroor onderstaande opsomming saamgestel:

In die Landbouweekblad van 23 April 2010 is daar twee berigte deur Johan Coetsee onder die opskrif "Vrae oor Kalkbemesting".

Die eerste berig is gebaseer op 'n skrywe deur Tienie du Preez, 'n grondkonsultant van Somerset-Wes, in samewerking met grondkundiges en wingerdbouers van die Universiteit Stellenbosch, wat gevolg het na 'n lesing deur Tienie by die Stellenbosch Grondkunde Besprekingsgroep na aanleiding van vrae deur boere en landboukundiges oor die sogenoemde Albrecht-bemestingsbenadering. Tienie bespreek die konsep van sg. "ideale" verhoudings tussen ekstaheerbare Ca, Mg en K en beklemtoon dat die verhouding uitgedruk moet word as 'n persentasie van KUV (bepaal by pH7) en nie som katione nie omdat dit in die geval van kalk- en brakgronde die KUV ver oorskry. Bemestingsprogramme kan nie op

kationverhoudings alleen opgestel word nie. Inligting soos blaarontledings, groeikrag, blaarkleur en vorige bemesting word ook benodig. In teenstelling met die Albrecht-benadering is die pH van die grond baie belangrik omdat die pH-vereistes van gewasse en onderstamme grootliks verskil. Tienie sê verder dat die Albrecht-metode van grondbalansering in verskeie gevalle gelei het tot die toediening van kalk as 'n misstof op hoë pH, kalkhoudende gronde in Upington en Noordoewer. Die onnodige aanvulling van gips, magnesium en kalium vind ook plaas. Die mening word uitgespreek dat die Albrecht-metode soos dit nou deur sekere konsultante in die vrugte- en wingerdbedryf toegepas word, gevaar inhou vir oningeligte produsente en dat hulle verkieslik 'n tweede mening moet kry.

In die tweede berig sê mnr. Cornelius Oosthuizen van die SA Biofarm-instituut dat die Albrecht-metode vir grondchemiese balanserings al 11 jaar met sukses in Suid-Afrika toegepas word. Hy maak die bewering dat sommige konsultante ongelukkig die tegnologie probeer toepas op data van plaaslike en ander laboratoriums wat kan lei tot verkeerde aanbevelings. Hy sê egter nie watter ontledings gebruik moet word nie. Hy sê dat grond met 'n hoë pH ontstaan deur 'n grondchemiese wanbalans. Die Albrecht-metode stel hierdie wanbelanse reg sodat die grond-pH outomaties reggestel word tot 'n pH_{water} van 6.4. wat ideal vir plantvoeding is. Die plant se pH vereistes word egter nie aangespreek nie. Hy maak verder die bewering dat die Albrecht-metode die waterhouvermoë van gronde optimaliseer, die grondbiologie gedy en dat alle gewasse se voedingstatus sal verbeter. Hy sê kalk en gips word nie gebruik om grondsuurheid regstreeks aan te pas nie, Die doel is ook om hoë pH op te hef deur ontslae te raak van die hoë vlak van 'n spesifieke kation deur ander katione wat tekort skiet te gebruik. Hy sê egter nie op watter basis die behoefte beraam word nie en waarsku dat boere versigtig moet wees om nie enige "Albrecht-konsultant" te vertrou nie.

Developments in the sugar industry

Farming sustainably is an important objective in the SA sugar industry. This not only includes caring for our soils but also the environment in general as well as economic and social issues affecting farmers. A farming system, the Sustainable Sugarcane Farm Management System (SuSFarMS™) was developed in South Africa with local sugar farmers, SASRI extension specialists and the WWF South Africa to be practical to use and implement.

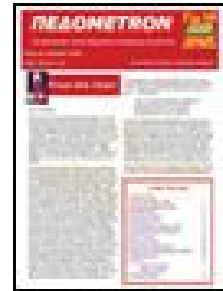
The system uses principles, which provide the primary framework for managing sugarcane farms in a sustainable manner, criteria - a second order principle that adds meaning to a principle and indicators and verifiers. The indicators and verifiers form the better management practices (BMPs), which were derived from local South African legislation and Sugar Industry required standards. The indicators and verifiers are included in an evaluation system or audit, which can be used by environmental auditors, extension officers and individual farmers to determine the status of the farm. Areas of strengths and weakness are identified and an action plan to improve the areas of weaknesses can easily be developed. SuSFarMS™ is a very useful extension tool enabling the extension officer to assess the status of a farm and to provide a more farmer specific service.

This system can however with minimum input be adapted to suite any agricultural industry. Basic requirements to do this will require input from the applicable legislation and BMP's of the industry under question. More information regarding this system can be obtained by writing to: Extension Manager, Private Bag X02, Mount Edgecombe 4300 or Tel: 031 508 7000 or Email: Geoff.maher@sugar.org.za

News from IUSS

New Pedometron

We are happy to announce the latest issue of Pedometron, December 2009. You can download it from www.pedometrics.org (size: 3.3 Mb). It has exciting and latest articles on every aspect of Pedometrics: The Richard Webster Medal, PM 2009 report from Beijing, Soil texture wizard (in R), an article on how to incorporate soil aging in digital soil mapping, the Hilbert-Huang transform, digital soil mapping in Ireland, soil carbon sequestration, a detailed report from the Geomorphometry conference 2009, Soil Bibliometrics on NIR in soil science, Profiles: Sabine Grunwald & Anthony Young. There is also some *Pedomathemagica* to solve. The next Pedometrics conference will be held in the Czech Republic in mid 2011.



Some Soils in the News

ScienceDaily is a popular science news website. Since 1995, the site has been used by students, researchers, healthcare professionals, government agencies, educators and the general public around the world. It has more than 3 million monthly visitors, and ScienceDaily generates nearly 15 million page views a month. Occasionally there are “soils” items on this news website, like, for example: Is Iron from Soil a Factor in Algal Blooms?; Spreading Antibiotics In The Soil Affects Microbial Ecosystems; From the Ancient Amazonian Indians: 'Biochar' as a Modern Weapon Against Global Warming; Changing Climate May Lead To Devastating Loss Of Phosphorus From Soil; Landfill Cover Soil Methane Oxidation Underestimated; Microorganisms Cited as Missing Factor in Climate Change Equation.



Explore the world

Gapminder is a non-profit venture – a modern “museum” on the Internet – promoting sustainable global development.



The initial activity was to pursue the development of the Trendalyzer software and to unveil statistical time series by converting numbers into enjoyable, animated and interactive graphics. The current version of Trendalyzer is a web-service displaying

time series of development statistics for all countries. It aims to keep the statistical content up-to-date and making time series freely available. It produces videos, Flash presentations and PDF charts showing major global development trends with animated statistics in colorful graphics. Gapminder has the intention of being a “fact tank” that promotes a fact based world view. There are no soils data but there are various statistics on land use, water, climate and the environment; all downloadable and with splendid graphs that show both spatial patterns and trends over time. See www.gapminder.org

News from University of the Free State

1) **Marcel Heine** het onlangs ‘n medalje van die vereniging ontvang by ‘n akademiese prysfunksie van die Universiteit van die Vrystaat. Hy was verlede jaar die finalejaarstudent in grondkunde met die beste volgehoue prestasie oor al die studiejare. Marcel is tans ingeskryf vir sy honneursgraad in grondkunde.

2) A project titled “Resilience, collapse and reorganization in social-ecological systems of East and South Africa’s rangelands” started recently. This project, which comprises of eight subprojects, is funded by the German Research Foundation for three years. **Chris du Preez** is co-leader and **Elmarie Kotzé** a researcher on one of the subprojects, namely “The vulnerability and resilience of soils under different rangeland uses”.

3) **George van Zyl** is by Kopsies ingeskryf waar hy op die African Soil Information Systems (AfSIS) projek navorsing doen oor "Digital Soil Mapping". AfSIS het in die vooruitsig om grondkundige en gewasproduksie inligting binne bereik van landbouadviseurs, boere en politici van Afrika te plaas. Kopsies se navorsingsarm "Cluster 4: Technologies for sustainable crop industries in semi-arid regions" het die kontrak gekry om die suidpunt van Afrika te diens en dien sodoende as 'n vierde 'Node' op die kontinent.

HUMOUR

An **ANAGRAM**, as we all know, is a word or phrase made by transposing or rearranging the letters of another word or phrase. But the real trick is to keep the meaning (well, more or less) while changing the letters.

The following examples are quite astounding (although I'm not sure about the quality of life of the people who sat down to work them all out!!)

General

Dormitory = **Dirty Room**
Desperation = **A Rope Ends It**
The Morse Code = **Here Come Dots**
Slot Machines = **Cash Lost in 'em**
Animosity = **Is No Amity**
Mother-in-law = **Woman Hitler**
Snooze Alarms = **Alas! No More Z's**
Semolina = **Is No Meal**
The Public Art Galleries = **Large Picture Halls, I Bet**
A Decimal Point = **I'm a Dot in Place**
The Earthquakes = **That Queer Shake**
Eleven plus two = **Twelve plus one**
Contradiction = **Accord not in it**

This one's amazing: [From *Hamlet* by William Shakespeare]

“To be or not to be. That is the question, whether 'tis nobler in the mind to suffer the slings and arrows of outrageous fortune”.

= **“In one of the Bard's best-thought-of tragedies, our insistent hero, Hamlet, queries on two fronts about how life turns rotten”.**

And the grand finale:

"That's one small step for a man, one giant leap for mankind!" Neil A. Armstrong
= **A thin man ran; makes a large stride; left planet, pins flag on moon. On to Mars!**

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 practicing 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.