"AGRICULTURE IS THE MOST HEALTHFUL, MOST USEFUL AND MOST NOBLE EMPLOYMENT OF MAN."

- GEORGE WASHINGTON

- Fertasa Workshop - Subsoil Acidity
- IFA Safety & Security
- Group 3 Registration
- Fertasa’s 57th Annual Congress
- NAMPO 2017
- Fertasa Soil Fertility & Plant Nutrition Symposium
- Publications / Articles
- Other News
- Library
Pieter Haumann welcomed all present and introduced Drs Chris Gazey and Steve Carr.

Steve Carr is managing director of a Company called Precision Soil Tech and Chris is a Senior Research Officer with the Government of Western Australia, Department of Agriculture and Food.

Steve and Chris proceeded to present their research findings and practises regarding the Wheatbelt NRM soil acidity project "Optimising soil pH for sustainable farm practises" (project No 04A1-07).

The following aspects were highlighted for attention in the affected areas in South Africa namely managing the acidity of sandy soils of the Central Grain Production region of South Africa.

1. Targeted liming: The primary target should be to obtain a pH (CaCl) of 5.5 to 6.0 CaCl₂ 0.01 M in the topsoil. The reason for this is to ensure that surplus acidity in the topsoil does not occur therefore preventing the subsoil from acidifying. The corresponding pH (KCl) would be 5.3 to 5.8.

2. Exchangeable Aluminium is not determined per se since pH (CaCl) is an accurate indicator of exchangeable Al on these unbuffered soils. At a subsurface soil pH(CaCl) above 4.5 to 4.8,( pHKCl 4.3 to 4.5 aluminium concentration is usually less than 2 mg/kg, As pH(CaCl) falls below 4.5 aluminium concentrations increase rapidly and quickly becomes toxic to most crop species. This is equivalent to a pH(KCl) level of 4.3

3. The primary target pH(CaCl) for subsoil is therefore to be above 4.5 at least. pH(KCl) 4.3.

4. Careful soil profile inspection should be done in season to determine whether soils are acidified or not. The use of a universal pH indicator is advised to determine this in situ. This is demonstrated well in the Guide kindly donated to Fertasa members.

5. Soil sampling should be done at increments of 10 cm up to a depth of 30 cm to determine subsoil acidity build up.

6. When subsoils are acidic the most effective method of amelioration is deep liming. Several implements to enable this were discussed. Research in Western Australia has shown that limited efficiency is achieved regarding mixing of lime with the subsoil. The implements succeed however in allowing plant roots to reach less acid horizons and thereby improve crop yield.
7. It was also emphasised that soil sampling should enable differential liming on the precision farming principle.

8. Limes are evaluated by incubation of different particle size as follows:

![Table 9 Calculations to determine the lime EP for lime X from Figure 45.]

<table>
<thead>
<tr>
<th>Particle size (mm)</th>
<th>Particle size discount factor</th>
<th>% of lime</th>
<th>NV</th>
<th>% efficiency (EP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–0.125</td>
<td>1</td>
<td>5</td>
<td>90</td>
<td>(5 ÷ 100) × 90 × 1 = 4.5</td>
</tr>
<tr>
<td>0.125–0.25</td>
<td>1</td>
<td>48</td>
<td>90.5</td>
<td>(48 ÷ 100) × 90.5 × 1 = 43.4</td>
</tr>
<tr>
<td>0.25–0.5</td>
<td>1</td>
<td>38</td>
<td>94.8</td>
<td>(38 ÷ 100) × 94.8 × 1 = 36.0</td>
</tr>
<tr>
<td>0.5–1</td>
<td>0.5</td>
<td>8</td>
<td>72.1</td>
<td>(8 ÷ 100) × 72.1 × 0.5 = 2.9</td>
</tr>
<tr>
<td>&gt; 1</td>
<td>0.2</td>
<td>1</td>
<td>62.5</td>
<td>(1 ÷ 100) × 62.5 × 0.2 = 0.1</td>
</tr>
</tbody>
</table>

**OVERALL EP = SUM OF PARTICLE SIZE EP = 86.9**

9. Application of gypsum to ameliorate subsoil acidity is not advisable on the relatively unbuffered soils in Western Australia.

10. Application of ultrafine lime in the fertilizer band has negative consequences on yield under experimental conditions.

11. Application of ultrafine lime made into granules and placed in the fertilizer band has limited effect since the surface of reaction of the fine lime is reduced to almost the same as large particles of lime.
Product Security Questions for Companies dealing with Nitrogen Fertilizers

Security on Site:
1. Has a security coordinator for the site been nominated?
2. Is there a security plan for the site?
3. Has the security plan got provisions for appropriate security measures?
4. Are there access/identity controls of people and vehicles?
5. Is access only for authorized persons?
6. Is there a record keeping of raw materials, intermediates and products in storage?
7. Is there a reporting and recording system for suspicious observations and theft in place?

Security in Supply Chain:
1. Has a security coordinator for the supply chain been nominated?
2. Is there a security plan for the transport, distribution and external storage?
3. Has the security plan got provisions for appropriate security measures?
4. Is access at external storage and distributors for authorized persons only?
5. Is there a record keeping of products in external storages and at distributors?
6. Is pick-up at production sites and external storages only by recognized customers and service providers with unique reference and relevant documentation and do they have the required certificates?
7. Is there a verification (and record keeping where appropriate) of identity of transport/haulier/driver at site or place of loading?
8. Is there access control for ships and barges when in port?
9. Is there a reporting and recording system for suspicious observations and theft in place?

Security for Sales:
1. Are sales restricted to identified/recognized distributors/professional users?
2. Are internet sales restricted to verified and account-holding customers?
3. Do you keep records of sales and deliveries?
4. Is there a reporting & recording system for suspicious transactions?
5. Do you have a system for safety and security awareness communication to your staff, customers and procured logistical activities?

The above product security questions are part of Protect & Sustain (Protecting & Sustaining), which is the product stewardship certification of the International Fertilizer Association.

Please click on the following link to view the article in larger print

IFA Safety and Security Article
After many years of planning and negotiation the first registration of a Group 3 product, based on the Guidelines For Registration, was recently approved (See Certificate).

This product consisted of beneficial Rhizobacterial strains on a granular carrier to improve plant growth and yield of wheat and maize.

A number of applications are currently being evaluated by DAFF for a range of Group 3 products and it is anticipated that further registrations will follow soon.

Prof Robin Barnard
A questionnaire was sent out via electronic mail to all delegates who attended the Annual Congress. Unfortunately out of the ± 120 delegates only 29 replies had been received.

**How would you rate the theme of our event?**
Good

**How would you rate the papers presented at the Congress?**
Good

**What did you like about the event?**
- Informative lectures. Well run. Well chaired. Great networking platform
- Very relevant and an opportunity to meet the industry role players
- The range of topics
- Networking sessions, cocktail and gala dinner, plus the afternoon after sessions before dinner.
- The theme and the presentations, they were an eye opener
- Venue & some of the papers
- All the papers were very informative
- Networking opportunity
- Positive energy
- Interaction between participants
- Time

**What did you dislike about the event?**
- Venue, Protea Hotels didn’t bring their full commitment to work with a large group. Consider Umhlanga when in KZN again in future.
- I do wish the presenters have written papers in addition to the presentations. otherwise the presentations were excellent.

- Some of the papers,
- Venue
- One speaker was not up to standard. Hotel was dis-organized. Best congress ever, make it longer
- It was about South Africa and not Southern Africa.

**Was the event length too long, too short, or about right?**
About right

**How would you rate the value for the money of the event?**
About right

**How organized was the event?**
Very organised

**Overall, how would you rate the event?**
Very good

**Do you have any other comments, questions or concerns?**
- Maintain the formality of the gala dinner.
- Joint event with AFAP for next time? 1st day AFAP (local people will have the option not to attend, but local people having the interest will join) 2nd day FERTASA (as currently, winning recipe)
- No, keep up with the good work.
- Could we also have presentations on industry statistics in the region. Fertilizer Production, consumption, outlook, trade etc.
Chairman: Adriaan De Lange  
(Managing Director, Omnia RSA)  
Chairman’s Report, Adriaan de Lange – Fertilizer Industry in South Africa

Paul Makepeace  
(Senior Fertilizer Specialist -Marketing)  
Paul Makepeace – Sustainability of the Fertilizer Industry

Dr Sylvester Mpandeli  
(Chairman, African Regional Working Group)  
Sustainability of Water

Prof Isaiah Wakindiki  
(Professional Natural Scientist)  
Prof Isaiah Wakandiki – Sustainability

Prof Roland Schulze  
(Fellow of the Royal Society of South Africa & Member of the Academy of Science of South Africa)  
Sustainability of Climate

Dr Herman van Schalwyk  
(Managing Director of Suidwes)  
Competitiveness and the Sustainability of Agriculture in SA
FERTASA’S 57TH ANNUAL CONGRESS 2017 - AWARDS

Training and Mentor in Small Scale Farming Award 2017, J McPherson
Left: Chairperson A. De Lange, Right: J. McPherson

Silver Medal, Extension Award 2017 S.J. Grobbelaar
Left: Chairperson A. De Lange, Right: S.J. Grobbelaar

Gold Medal Award, 2017 W.J. Fölscher

A De Lange (Left) handing over the Fertasa Certificate of Compliance to Frik Heymans from All Size Packaging

Andre Britz (Right) from Profert received the Fertasa Certificate of Compliance from A. De Lange (Left)

Adam Mostert (Right) received the 2017 Honorary Award from A. De Lange (Left)
Pieter Haumann was invited to take part in the 50 year Grasland Television Recording at the 2017 NAMPO Show. Pieter was joined by Etienne Schoeman from Grasland and Martiens Du Plessis from NWK. The recording included discussions on Grasland’s 50 year anniversary, their future plans for Grasland, the Liming Industry as well as information on Fertasa. A copy of the recording is available on the Fertasa Website, www.fertasa.co.za

Don’t miss the informative Q & A session towards the end.

From left to right is: Theo Vorster (Galileo Capital), Etienne Schoeman (Grasland), Martiens Du Plessis (NWK), Dr Pieter Haumann (Fertasa)
Final deadline for registrations is 7 August 2017, so get those forms in to avoid disappointment.

Please contact Candice van der Walt for registration forms: candice@fertasa.co.za
FERTASA-LEDE PLAAS ’N HOË PREMIE OP AANSPREEKLIKHEID

Toepassing van ’n omvattendt sertifiseringsproses van individuele maatskappe deur ’n onafhanklike entiteit in die kunsmisbedryf.

Deur FERTASA streef bovengemelde maatskappe na die volgende beginsels:
- Beëindiging van die omgeeving (grond, water, atmosfeer, plantgroei en dier).
- Beëindiging van agroindustrie deur die voedselwat die kunsmis gewoonlik gebruik.
- Beëindiging van groenproduusie teen toefelgende verskille.
- Nalatiging van internasionale standaard.

FERTASA help om risiko wat die verspreiding van bovengemelde beginsels bedreig, te beperk:
- Ondersteun deur die kunsmisbedryf en DAFF deur gesame met te poesie en kunsmisveiligheidsplannings in omwerking.
- Ontwikkel en publiseer die Kunsmishandleiding en ’n wetenskaplike regie vir die beëindiging van probleme.
- Handhaf die FACTS/BIASOS-kursus om adviseur op te lei in die verantwoordelike beëindiging van probleme.
- Ondersteun deur die kunsmisbedryf met die toepassing van selfregulering.
- Ondersteun velduiters met die handhawing van ’n onafhanklike kunsmissupervisor, die peer in ooreenstemming met GSA.
- Toepassing van ’n gedragskodê wat die integriteit van die kunsmisbedryf bevorder.

*** LEDE WAT DE FERTASA STEMPFEL VAN GOEDKEURING VERWERF HET (GEDRAGSKODE – NALOMICING GESERTIFIEER)***

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The Fertiliser Association of Southern Africa NPC, Reg. No. 1971/000013/04 • VAT Reg. No. 6930106364
Voorspelling van ondergrondssuurheid in de Vrystaat ondersoek

1. Pieter Haumann, hoofd uiteenlopende kwaliteit, Fortassa

Fortassa is deur Grain SA en Hy Pieter Haumann, hoofd uiteenlopende kwaliteit, in verband met ondergrondssuurheid, die uitval van plantenlike in waterafgelaste grond in die Vrystaat kry pekerig. Almal het hierdie probleem ondersoek.

Een van die belangrike beleide is die identifisering van landboulande waarin die suurgrondssuurheid probleem aan die front staan. Hierdie landboulande wees die volgende oor aan aantal van suurheid.

Beveiliging van suurheid

Hulle het ontdek dat deur suurheid kan beveiliging die landboulande in suurheid geïdentifiseer en daarom aan die voorgrond geplaas is. Die hoof voorkeur was om die suurheid op die hoogste peil te hou.

Klare probleem

Hulle het ontdek dat suurheid probleem is aan die voorgrond. Die landboulande wees die volgende oor aan aantal van suurheid pryse.

Verdere ondersoek nodig

Outsiders word gevra om suurheid probleem op die hoogste peil te hou. By die suurheid probleem lê die voorkeur om die suurheid op die hoogste peil te hou.

Gerekend is die pekerigheid dat daar suurheid probleem aan die voorgrond staan. Almal het hierdie probleem ondersoek.
Indien die plant nie die nitriaatooi (NO₃⁻) opneem en 'n hiksaatool (OH⁻) vir elke nitriaatooi uitskep wat H⁺ neutraliseer nie, sal die grond versuur.

Dit kan gebeur wanneer NO₃⁻ uitloop met swaar reën of tydens droogte waar plantse nie plaaslike stowwe kan opneem nie. Swaar reën na droogte, soos wat hierdie seisoen voorgekom het, sal beits tot grondversuur lei.

Indien uitsers 'n kalk stels in die kunsnisband teen verlaagde vlakke sonder om die agfele mate van versuur van die grond te bestuur, toegediens, kan ondergrondversuur beits plaas vind.

Produente moet praktyk sog "vooraf"-bemesting evalueer en die impak daarvan op grondversuur bepaal.

Moontlike opheffing van die probleem

Reglye vir die hantering van dié probleem word in Fertas sa Bemestingshandboek gegee. Fertas se handboekkundiges is oor goed om met hulle wyse kennis en ervaring advies te gee oor hoe om die probleem te kan hanter.

Enkele aspekte uit in ag geneem sal moet word, is die volgende:
- Die presiese omvang en posisie van die versuur moet vasge- stel word.
- Daar is 'n mening dat giestoeding ondergrondsaureheid op die sandwande van die Wystaat sal ophef. Dit kan hulpkantiere wees, aangesien gips stels op ondergronde met voldoende seisoenleeds die selfbekaalkingseffek kan word. Op sandere gronde kan magnesium uitloop al of nie die gips met dolomieties kalk toegediens. Kalkum word ook uit die begroeiing gestrooie met gipsosulfoetling. Die hoeveelheid gips wat by die kalk gewos is, vermind die hoeveelheid kalk toegediens en dit moet in berekening geneem word.
- Dit sal ongelukkig in heel wat gevalle nodig wees om die effek as normaal te beheer wanneer gronde dieper as die bewerkings- diepte versuur is. Daar sal gekyk moet word na geskikte implemente en bewerkings om die kalk doeltreffend toe te dieen. Geenbenutting het ook sy eie uitdaginge indien ondergronde versuur is.
- Die effek van gobrande bekaalking kan in die profiel afwerwe, maar dit wat etilie jare en intussen kan oesverlies-gelyk word. Herversuur sal egter verhoed moet word deur effense "oorbe- bekaalking" van die begroeiing.

Samenvatting

Dit kan nodig wees om al die veranderlikes by 'n werkwinkel of konferensie waar produente en adviseurs leenwoordig is, te bepaal van die hulpbehoeftige vervaarder om in hierdie opsig in te stek te lei. Grondversuur is 'n natuurlike proses wat reg bestuur moet word. Indien bekaalking wiskundig benader word, is dit altyd oor die lang termyn winnig teke.

Dit is uitsers belangrik dat gewone bemesting van gewasse nie agterwee gelaat moet word nie. Kalk kan nooit die plek van bemes- ting inneem nie: Beakaalking en bemesting is altyd aanvullend tot mekaar.
Fertasa has been invited to attend the Bio-control Africa conference which will take place on 12 and 13 July 2017 at the Southern Sun Cape Sun in Cape Town. The conference will be looking at various biological products and some bio-control technology.

Vusi Mashele, who also assists in the registration of fertilizer products which includes bio-fertilizers, will attend the conference to learn and form part of any discussions at this important event.

The bio-control conference comes at an opportune time where Group 3 fertilizer registration has been implemented, with bio-fertilizers being some of the products falling under this category. The conference has huge relevance for the bio-fertilizer manufacturers, distributors and Fertasa as fertilizer association.
Calling for donations!

Fertasa is starting a library.

If you have any books related to agriculture/fertilizer that you would like to donate, please give them to Candice the next time you are at our offices.