

# IUSS Bulletin

Bulletin of the International Union of Soil Sciences (IUSS) | December 2011



119



## International Union of Soil Sciences (IUSS)

The IUSS Bulletin is the official Newsletter of the International Union of Soil Sciences.  
It is freely distributed through the IUSS website.  
All contributions are welcome and should be send to the editor.

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# A Brief Report of the IUSS Executive Committee Meeting

15 October, 2011, Hotel Palacio del Rio, San Antonio, Texas, USA

**Present:** Jae Yang (President), Alfred Hartemink (SG), Alex McBratney (DSG), Jim Gauld (Treasurer), Karl Stahr (Chair Division One), Jon Chorover (representing Martin Gerzabek Chair Division Two), Rainer Horn (Chair Division Three), Chuck Rice (Chair Division Four), Stephen Nortcliff (Chair Budget and Finance - minutes), Don Sparks (Chair Committee on Structure), Roger Swift (Chair of Presidential Elections), Ester Szein (Observer from the National Academy of Sciences).

**Apologies were received from:** Mary Beth Kirkham (Chair of Awards and Prizes) and Martin Gerzabek (Chair Division 2).

The President welcomed all those present and introductions were made through a 'tour de table'. The President outlined the importance of the meeting as a critical step in maintaining the activity of IUSS both in relation to the World Congress in 2014, but also the importance of responding to the increased awareness amongst policy makers and others of the importance of soils in many of the key processes involved in sustainable development at local and global scales. He stressed that crucial to many of these activities was the financial strength of IUSS and this should be part of the focus of the discussions during the day.

## Report of the Secretary General

Alfred Hartemink outlined some of the matters which had been his priority in the first few months since he had taken on his new role. He noted however that during July and August he had moved from Wageningen in the Netherlands to Madison, Wisconsin. As a consequence there had been an unavoidable gap in the production of IUSS Alerts. In response the Committee understood why this gap had occurred, but took this opportunity to thank the SG for his considerable efforts in producing both the Alerts (75 since 2005) and the Bulletins (16 since 2002). The Bulletins contained a great deal of information and were produced at the rate of two per year. The monthly Alerts were distributed to a high proportion of the membership (approximately 12

000 addresses), enabling regular contact and information provision. Reports from a number of sources indicated these were very much appreciated by the membership.

### a. Elections

It has previously been recognized by Council that the election process in 2007-8 did not work as smoothly as would have been wished. There had been obvious flaws in the voting process and the recording of votes by some National Members. A brief had been given in Brisbane in 2010 for the new SG to investigate the possibility of electronic voting. Following consultation with the staff of SSSA in Madison, this was now seen to be possible, but the time required to establish the process and an appropriate procedure for checking the validity of voters would mean that the timetable outlined for the election process in the Bye Laws was no longer feasible.

***The Executive Committee resolved to ask Council (via an electronic ballot) 'to suspend the Bye-Laws to allow electronic voting for Division and Commission Officers in 2012.'***

If these electronic arrangements proved to be successful, an amendment to the Bye Laws to accommodate this would be tabled in the Council Meeting in 2014.

### b. Finances

It was noted that our invest income was exceedingly small because of the low level of interest rates in the UK and North America. It was considered that IUSS needed to investigate how these funds could be invested with a higher return than at present, but at low risk (this was discussed later).

### c. Honorary Members

The call for nominations for Honorary Members would be circulated widely by November 1. The election of Honorary Members would take place in June at the InterCongress Meeting. It is planned that the Honorary Membership will be presented at the WCSS in June 2014.



*L to R: Jim Gauld, Alfred Hartemink, Alex McBratney, Stephen Nortcliff, Don Sparks, Jae Yang, Roger Swift, Chuck Rice, Karl Stahr, Rainer Horn, Jon Chorover.*

#### **d. What is IUSS?**

Together with the previous Chair of Budget and Finance and Stephen Nortcliff, Alfred Hartemink had produced short summary documents outlining the activities of IUSS and the benefits of a National Member's involvement which had been sent at various times in the past to National Members at the time of subscription renewals. This was a first step but it was considered necessary by the committee to revisit this, possibly producing a series of documents or short statements which could be used to inform National Members, Individual Soil Scientists, Policy Makers and others wishing to know about soils.

#### **e. IUSS Conferences**

Currently IUSS runs a WCCS on a four yearly cycle. In addition there are some Commission Meetings and some meetings to which the IUSS logo is badged. The SG proposes a series of single theme Conferences which would involve all Divisions. For example these might be on Soil Carbon in 2013 and Soil Water in 2015. The meeting welcomed this idea and asked the SG and the Four Division Chairs to produce an outline of how these Conferences might be organized with the guiding principle that

all Divisions should be involved in the programmes. Suggestions for locations of the Soil Carbon were Madison and Kansas. There was discussion of Divisional funds possibly being used to support graduate and young post-doctoral involvement.

#### **f. Co-operating Journals**

Over the last 7-8 years little progress had been made with our plan of seeking contribution to funds from the Co-operating Journals. These journals were still available at reduced rates to individuals from Countries who were National Members. Whilst the numbers taking up this opportunity were relatively small it was an important service for some. The SG would make an effort to ensure that the IUSS logo was included on the journals and on offprints.

#### **g. First and second Generation Communications**

The Bulletin and Alerts were successful examples of first generation communications. First steps were being taken to develop second generation communication such as Twitter, Facebook, LinkedIn, etc. These should enable more member involvement in IUSS.

#### **h. Global Soil Partnership**

The Global Soil Partnership was launched by FAO in Rome in September 2011. IUSS were represented by the President, The Secretary General and the Deputy Secretary General. Chuck Rice was also present representing SSSA. Whilst there was a lack of clarity on how this would move forward and what might be the outcomes, it was recognized that IUSS **must** be involved. At the launch in Rome it was possible to make interventions to draw attention to the potentially substantial contribution which IUSS could be made to this initiative, but these must be followed up if the Partnership is to make real progress. There is a Committee being drawn up to progress the initiative with nominations due in mid October. The Executive Committee recommended IUSS make the following nominations: Jae Yang, Alfred Hartemink, Alex McBratney, Chuck Rice and Maria de Lourdes Mendonça Santos (from the IUSS Working Group on Digital Soil Mapping).

#### **Report of the Deputy Secretary General**

Alex McBratney briefly reported actions taken since Brisbane 2010.

##### **a. Website**

Following a decision made at Council in Brisbane the IUSS website had been moved to Australia. This move had enabled increased functionality, and as a result it was now possible for members to upload material. These developments were ongoing.

##### **b. Membership payments to IUSS**

The DSG had noted that membership payments from some countries appeared to be less than he would have anticipated. The DSG had undertaken a modelling exercise to determine, based on GDP and population of each potential National Member, what might be a fair per member subscription. Whilst this modelled information was interesting the meeting agreed that the current three tier system based on GDP was fairer. The meeting noted the information on potential modelled membership numbers, which did raise some interesting questions about the recorded membership in some Member countries.

##### **c. Strategic Plan**

The DSG table an outline Strategic Plan tentatively entitled 'Realizing the Mystique of Soil & Valuing those who study it'.

The plan restates the IUSS Mission and Vision and

then addresses a number of 'Overarching Strategies' including

1. Branding Soil
2. Branding Soil Science
3. Increasing participation
4. Increasing the resource base (mentioned in b. above), but also investigating other sources of funds, such as philanthropic sources.
5. Improving the Member experience
6. Improving Stakeholder engagement
7. Facilitating Soil Science
8. Promoting Global Soil Instruments

The paper also tentatively suggested 9 **Noble Challenges** facing Soil Science and Soil Scientists. The Committee resolved to make suggestions and elaborations on this document by the end of the year before this would be circulated widely to the Membership for comments.

#### **Report of the Treasurer**


Jim Gauld presented the audited accounts for 2010 for approval by the Executive Committee prior to forwarding to Council. The Accounts were approved.

#### **Report of the Chair of Budget and Finance**

In association with the Treasurer, Stephen Nortcliff presented a summary of the current financial position of the Union and future trends.

##### **a. Membership fees**

currently this is our major source of income. Some funds are paid by National Academies, some by National Members directly. A number of the National Academies are receiving reduced funding so their contributions to IUSS may decrease (e.g. NAS contribution will fall from \$55k in 2011 to \$46.5k in 2012, Japan \$6k in 2011, \$5k in 2012). Where National Members contribute from their own funds we have our three categories based on GDP with a rate per member at present of \$6.25 for Group 1 \$3.75 for Group 2 and \$1.25 for Group 3. These will increase in 2012 following the resolution of Council in Brisbane. The number of members for each National Member is based on information provided by the National Member. The membership information for some National Members seems not always to reflect the general knowledge of activity in the country. Where there are perceived discrepancies the President will write to National Members to ask for more accurate membership numbers.



It was noted that a number of the officers in Commissions were members of National Members who had not paid subscriptions for 2011. To be an officer of the Union the individual must be a member of a National Member who is in good financial standing with IUSS. Further National Members who are not in good financial standing with the Union are not entitled to nominate individuals for election, nominate Honorary Members or participate in activities of the Union (e.g. elections, meetings etc.).

#### **b. Outreach**

IUSS has had an outreach programme since 2005. This has involved the production of leaflets and booklets, some linked to the Year of Planet Earth, and the support of occasional projects (e.g. recent support for the Western Australia School Project directed by Lyn Abbott). The Executive Committee considered that it was important to maintain the outreach programme, but that there needed to be a more structured plan on what was to be achieved and how support will be directed to achieve the targets of the plan.

#### **c. Future Budgets**

Stephen Nortcliff was asked to produce a budget through to 2015 in which alternative scenarios could be modelled (e.g. funding changes).

#### **d. Investment policy**

following earlier decisions the capital of the IUSS had been invested safely to earn interest on investment accounts. In the past this had produced a small but satisfactory return. In the current global financial position the returns had fallen to very low levels. Whilst the Union did not wish to take risks with its capital it should seek ways of achieving a higher return than at present. Alfred Hartemink suggested IUSS might seek advice from SSSA who currently invest over \$2m in a balance of equities and bonds. The possibility of IUSS being a subset of the SSSA investment policy should be investigated.

### **Report of the Chair of Prizes and Awards**

In the absence of Mary-Beth Kirkham this report was tabled. There were two main areas of discussion.

#### **a. Dokuchaev and Liebig Awards**

IUSS must dispel the widely held perception that these two awards are for work in Pedology and Chemistry respectively. They are for contributions to Basic Soil Science and Applied Soil Science. The Com-

mittee recommended that an attempt be made to rewrite the information about the prizes to make this clearer, possibly by removing the words 'basic' and 'applied'.

The Standing Committee must seek to ensure much wider range of nominations than have occurred in the past.

#### **b. Division and Commission Prizes**

There had been calls from a number of Commissions to establish prizes for outstanding achievements in their subject area (there are already a number of Prizes associated with Commissions in Division One). Whilst there were some concerns expressed about the proliferation of awards, the Executive broadly welcomed this move but asked that the Committee produce guidelines so that Commission awards are based on broadly similar procedures and criteria across all Divisions. It was stressed that if there were no candidates who satisfied the award criteria, awards should not be made. Whilst Division Chairs may make funds available to support these awards, there were no general funds available.

### **Report of the Presidential Committee**

Roger Swift presented the documents outlining the position of President and the procedures for nominations and elections. With a small number of modifications these were accepted. Nominations are requested for January 17 2012.

### **Report of Committee on Structure and Statutes**


Don Sparks briefly reported that there one or two minor typographical errors which needed correction. In the past the Statutes and Bye Laws were produced in a small booklet. The SG suggested setting up the current Statutes and Bye Laws in a pdf format in a booklet style.

### **Reports from the Divisions**

#### **Division One**

Karl Stahr reported on the Division activities, which included:

1. The presentation of the Guy Smith Medal to Rudi Dudal
2. His attendance at the National Conference of the Philippines Soil Science Society in May.
3. The involvement of Commissions 1.3 and 1.6 in the INQUA Conference in Hohenheim
4. Commission 1.1 is planning a combined conference and field tour based on Barcelona organised by Rosa Poch.

- 
5. The Commissions will be holding a number of symposia at the Eurosoil 2012 meeting in Bari in July 2012.
  6. A general question which needs resolving is why there is both a WG WRB and a WG Universal Soil Classification
  7. A Divisional Conference is planned Ulm, Germany 30 September to 4<sup>th</sup> October 2014.

#### **b. Division Two**

Jon Chorover presented the report on the Division.

1. The Division co-sponsored a symposium at the Goldschmidt Conference in 2011.
2. There are plans for two further sponsored symposia
3. The Commission also included comments on the procedure for selection of oral presentations at WCSS and the limited number of oral presentations in the area of Division 2 activities in Brisbane. It was noted that the availability (cost) of providing rooms was often the key determinant of the number of slots available. It was also noted that Division 2 had a number of non-themed symposia because of the high demand.
4. The Division questioned the efficacy of the review process and the choice of short (4 page) papers instead of short abstracts. In response it was noted that the short paper has been the norm at successive WCSS.

#### **c. Division Three**

Rainer Horn noted markedly differing degrees of activity amongst the Commissions. Commission 3.5 is particularly active. Commission 3.2 will have a symposium at Eurosoil 2014. The WG-Acid Sulphate Soils is also particularly active.

#### **d. Division Four**

Chuck Rice noted that Commission 4.2 was in the process of producing a position paper on Soils in Human Health which is possibly targeted for publication in Science.

There was a general discussion on how to ensure that there was full participation in the activities of the Divisions and Commissions. It was noted that since their election the communication with some commission officers had been exceedingly limited. It almost as if for some the appointment as a Commission Officer was the aim rather than progressing the activities of the Commission and Division!

#### **World Congress of Soil Science 2014**

The President presented a brief update on the Inter Congress Meeting, June 3-8, 2012 and the Congress June 8-13, 2014. The provisional estimates suggest a registration fee of \$250 for the InterCongress Meeting and \$500 for the World Congress. In addition to hotel accommodation there is also condominium accommodation available at much cheaper rates.



# IUSS Inter-Congress Council Meeting

June 3 (Sun)-8 (Fri), 2012

International Convention Center (ICC), Jeju, Korea

The 20th WCSS Organizing Committee

Korean Society of Soil Science and Fertilizer



It is our pleasure to invite you to attend the Inter-congress Executive and Council Meetings in Jeju Island, Korea from June 3 to 8, 2012, to be held in the Jeju International Convention Center (ICC), the same venue of the 20th World Congress of Soil Science. The meeting agenda will encompass various issues of what IUSS faces. Welcome to the discussions on which to base the future development of IUSS! Also the meeting will provide the scientific and cultural tours through which you will experience the volcanic soils and the rich cultures of Jeju Island. Jeju Island is not only Korea's most prestigious resort destination but also has been the venue for various International meetings. The warm hospitality of the Koreans and the unique cultural folk heritage of Jeju, coupled with the natural beauty of the volcanic island, will provide all attendees a wonderful experience. We look forward to seeing you in 2012.

## General Information

**Visa:** All visitors to Jeju may stay up to 30 days without visa except for few countries

**About Jeju ICC and Jeju Island:**

<http://iccjeju.cafe24.com/eng/>

**About Korea Travel**

<http://www.visitKorea.or.kr/intro.html>

**Accommodation:** Many hotels in nearby ICC (inside the Jungmun Tourist Complex; examples are below)

<http://www.lottehoteljeju.com>

<http://www.shilla.net>

<http://www.hyattjeju.com>

More information will be provided in detail in the next circular.

## Tentative Programs

Day	Session	Jeju, 2012
Sunday June 3	morning	Arrival and Free Time
	afternoon	Executive & Presidential Meetings
	evening	Dinner for Executive, Presidential and Council Members
Monday June 4	morning	Council meeting
	afternoon	Council meeting
	evening	Welcome reception
Tuesday June 5	morning	Scientific and Cultural Tours Tour of 20th WCSS Venue (ICC)
	afternoon	
	evening	Dinner
Wednesday June 6	morning	Council meeting
	afternoon	Council meeting
	evening	Council meeting (Optional)
Thursday June 7	morning	One day joint symposium with KSSSF (Soil Embraces Life and Culture)
	afternoon	
	evening	Dinner with KSSSF members
Friday June 8	morning	Council meeting (Optional)
	afternoon	Leave Jeju
	evening	

# 150<sup>th</sup> Anniversary of the birth of Nikolay Sibirtsev

*By L.A. Varfolomeev, I.V. Ivanov, P.V. Krasilnikov,  
S.V. Goryachkin*

Nikolay Sibirtsev (1860-1900) was the most talented follower of Vasili Dokuchaev, widely acknowledged as a co-founder of the soil science. He published the first textbook of Soil Science in the world (1900), introduced the concepts of 'zonal', 'intrazonal' and 'azonal' soils, developed the first Russian soil taxonomic classification. The name of N.M. Sibirtsev is one of the most respected in the Russian soil science. However, the Sibirtsev's contribution is much less known in the international soil science, as his name due to the brevity of his life in the beginning of the career has been "in the shadow" of the name of V.V. Dokuchaev, and then of the name of K.D. Glinka.

Nicholay was born in the North of Russia in the city of Arkhangelsk in the family of a teacher of the local theological seminary and had four brothers and four sisters. His father, Mikhail Ivanovich (1822-1912), got higher agricultural education and he possessed the poetic and literary gift that in largely determined the interests of children to science.

After graduating from theological seminary Nicholay Sibirtsev in 1878-1883 got his education at the St. Petersburg University, the Natural Sciences Department of the Faculty of Physics and Mathematics from renowned professors - chemists D.I. Mendeleev and A.M. Butlerov and geologists A.A. Inostrantsev and V.V. Dokuchaev.

V.V. Dokuchaev in those years was creating the basis of genetic soil science and in 1883 defended his doctoral thesis on the famous book "Russian chernozem". N.M. Sibirtsev became the first and the favorite, and perhaps the most talented student in a series of such famous pupils of Dokuchaev as V.I. Vernadsky, K.D. Glinka, P.V. Ototsky (soil scientist and hydrogeologist, the founder of the "Pochvovedenie (Pedologie)" journal) and others.

After graduation from the university, N.M. Sibirtsev participated in an expedition under the the direction of Dokuchaev to study the geology and soils of the



Nizhny Novgorod region and to develop methods to assess soil fertility. Upon completion of the expedition, in 1885-1892 years N.M. Sibirtsev lived and worked in Nizhny Novgorod – he organized the local museum of natural history and headed it. At the same time he was developing a geological map of the some territory of local province and was improving the methods of soil map compilation and soil assessment using the data on crop yields and numerous chemical analysis of soil and plants; he also was teaching science and chemistry in high schools. N.M. Sibirtsev was characterized as a man devoted to science, a very humble and honest, very hardworking and self-critical, principled, self-conscious. He had no family. And he was not an active public figure.

In January, 1894 V.V. Dokuchaev sought the appointment of N.M. Sibirtsev to the post of Adjunct Professor in the Department of Soil Science in the Institute of Agriculture and Forestry in Novo-Alexandria (actually Puławy, Poland). Since 1893, N.M. Sibirtsev was living in Novo-Alexandria and was heading the department until 1900.

N.M. Sibirtsev activity in 1893-1898 is as follows: lecturer in soil science and historical geology, scholar of the soils of Poland and the Pskov region, he made the trip along with K.D. Glinka in Western Europe in 1898 (visited Germany, Switzerland, Italy and Austria-Hungary), published about 50 papers. Sibirtsev was continuously working on the textbook of Soil Science and three days before his death he signed the text of the book for printing (*Pochvovedenie*, St. Petersburg. 1901. 554 pages). He was awarded by the gold medals for participation in the All-Russia agricultural exhibition (1895, Moscow) and the Paris International one (1900). In 1901 there was published "Soil map of European Russia, drawn up on the initiative of Prof. Dokuchaev" by N.M. Sibirtsev, G.I. Tanfilyev, A.R. Ferhmin (scale - 1:2 520 000, 6 pages, 1901). After traveling through Western Europe in autumn 1898 N.M. Sibirtsev got seriously ill (Glinka took over in the department). In 1899 Sibirtsev was treating but he died on July 20, 1900 from pulmonary tuberculosis in a sanatorium in the village Vozdvizhenskoe (Ufa Province near Ural).

The Fate had brought Sibirtsev only 40 years of life. However, his input to Soil Science is great. The fields of the science to which the contribution of Sibirtsev is especially important are as follows.

1. Conceptual systematization of the major theoretical positions of "Dokuchaev Soil school and genetic (theoretical) branch of soil science". It is contained in the textbook "*Pochvovedenie*". The main idea of this textbook is that soils are specific natural bodies and soil science is independent science. Pedology was first presented as a harmonious concept on soil solid mass, on soil as a geophysical formation (natural body), on soil cover (this term may be born by Sibirtsev) and on the soil as a medium of growing plants (considered the question of agronomic soil evaluation). These and other ideas of Sibirtsev were significantly ahead of its time. It took decades for their development (the hierarchy of soil systems, the theory of the soil cover pattern, the principles of assessment of soil and others). Several times they have been rediscovered by scientists in different countries and became the foundation of science.
2. Concepts on soil zones, zone types and subtypes of soils.

3. Sibirtsev differently than Dokuchaev, grouped the factors of soil formation: 1/ Rocks, 2/ Processes in soils related to organisms 3/ "Complex conditions" (climate, topography, the history of the territory). Climate and organisms were recognized by him as particularly close related factors.
4. Sibirtsev proposed the concept of zonal, intrazonal and azonal soil. The introduction of these terms contributed to the analysis of geographic patterns of distribution of soils, differentiation of soils on the degree of development. He proposed the idea of genetic sequences soils.
5. Sibirtsev gave birth to soil taxonomy, having a rigorous meaning to the concept of "soil type". "Subtypes of soil" were based on the manifestation of the intensity of various processes (different subtypes of chernozem because of depth of humus horizon, different degree of eluviation in podzolic soils).
6. N.M. Sibirtsev considered the morphological characteristics of soils to be the expression of the soil processes that need to be "decrypted". This contributed to the development of A-B-C horizons.

Sibirtsev met the expectations of Dokuchaev. Department of Soil Science of Novo-Alexandria has become the center of soil science. Its alumni, students of Sibirtsev were developing the science, creating new departments and institutions of soil science to educate new students. After the death of Sibirtsev in 1900-1911 the department was headed by K.D. Glinka - his friend and also an outstanding student of Dokuchaev.

Sibirtsev's name is very respectful in Russia. In the homeland of the scientist, in Arkhangelsk, every 5 years there conducted Sibirtsev public readings since 1970. On the basis of these regular readings the International memorial scientific conference was held on the 14-16<sup>th</sup> of September, 2010 to chronicle the 150<sup>th</sup> anniversary of Sibirtsev's birth and the 110<sup>th</sup> anniversary of his untimely death. The conference was organized by the Dokuchaev Soil Science Society, Institute of Ecological Problems of the North of Russian Academy of Sciences, the Northern (Arctic) Federal University, Arkhangelsk and other sponsors. The plenary session of the conference was focused on the contribution of Nikolay Sibirtsev to the development of actual soil science in Russia and in the world. The conference was attended by 65 people from differ-



*The participants of the Memorial Conference in Arkhangelsk put flowers to the memorial board in remembrance of the Sibirtsev brothers*

ent parts of Russia and countries of the former Soviet Union. There were discussed five topics:

1. Contribution of N.M. Sibirtsev to the world soil science and creative development of his heritage;
2. Contemporary problems of the soil genesis and geography;
3. Classification of soils from N.M. Sibirtsev to the present day;
4. Evaluation of soil and land resources;
5. Problems of Soil Ecology of the North.

The participants of the memorial conference applied to local authorities with a proposal to name one of the streets in Arkhangelsk after Nikolay Sibirtsev and his brother, Iustin Sibirtsev, a well-known historian.

In conclusion, we can state that the research and scientific lives of V.V. Dokuchaev and N.M. Sibirtsev were intertwined and inseparable. Without supervision of Dokuchaev there would be no Sibirtsev as soil scientist and without research and generalizations of N.M. Sibirtsev the basis of Dokuchaev Soil Science concepts would not have been so harmonious as we know them. Soil Science of the world develops along the way, scheduled by Dokuchaev and Sibirtsev.

# IUSS Alerts May - November 2011

## International Union of Soil Sciences



### Information for and from the global soil science community

**IUSS Alerts** are e-mailed to more than 12, 000 people in over 100 countries. If you have information to share, please send it to [hartemink@wisc.edu](mailto:hartemink@wisc.edu). Below are the still relevant contributions that appeared in the IUSS Alerts from May till November 2011.

### IUSS President - Call for Nominations

At its Meeting held in August 2010 in Brisbane, the IUSS Council adopted new procedures for the election of the President of the Union. The key change that was made by Council at this meeting was to break the link between the role of the President of the Union and the organisation of the World Congress of Soil Science. The IUSS is now calling for nominations to the position of President. The person elected will take up the position as President-Elect in mid-2012, and will serve as a Senior Officer for a total period of six years. Persons nominated should be internationally-recognised, leading soil scientists who possess and exhibit first-rate interpersonal and communication skills. Further details of the selection criteria to be used and the nominations procedure are on the IUSS web site [www.iuss.org](http://www.iuss.org). Nominations should be made by 17th January 2012.

### Nomination for IUSS Honorary Members

Honorary Members can be nominated by any Full Member and the nomination material has to be sent to the Secretary General. The material shall not be more than 2 pages long and should show the background of the individual and his or her service to the IUSS and the impact that this person has had internationally on soil science. Elections shall take place by secret ballot among Council members present for the mid-congress meeting and the results announced in the Bulletin after the Mid-Congress meeting. The president will send a letter and a certificate to the elected Honorary Members informing them of their selection. The new honorary members will be recognized at the next Congress. Please send your nominations for IUSS Honorary Members to the Secretary General at [hartemink@wisc.edu](mailto:hartemink@wisc.edu) before 1st January 2012.

### IUSS Inter Congress Meeting June 2012

The Inter-Congress Meeting will take place on Jiju Island, Korea from June 30 to July 4 2008. Full details together with registration forms will be available shortly. Please send items for discussion at the Business Meeting of Council. For more information see [www.20wcss.org](http://www.20wcss.org) or contact the IUSS President Prof Jae yang at [yangjay@kangwon.ac.kr](mailto:yangjay@kangwon.ac.kr)

### No address, no communication

We like to have up to date information on the Officers of the National Soil Science Societies. Many Societies change their officers annually, and in order to keep Member Societies informed details of current Office Holders, their postal addresses and current email addresses are needed.

Please mail details of your current Soil Science Society Officers to [hartemink@wisc.edu](mailto:hartemink@wisc.edu)

### Micromorphology Newsletter

In this newsletter you will find the report on the course in Tübingen 2011, and the announcement of future courses in Medellín 2011 and in London 2011. Also, there will be meetings, workshops and congresses very shortly: Pisa 2011, Vienna 2011, Lleida 2012, Eurosoil2012 Bari, Moskow-Smolensko 2012. Some of these meetings are very close to each other, which may be an advantage for people coming from overseas. You will also find new publications, announcements, short research notes and new projects where we need your help.

See: <http://loess.umcs.lublin.pl/micro.htm>

## IUSS Dokuchaev and Liebig Awards



Two awards are presented by the IUSS at each World Congress of Soil Science to recognize outstanding contributions in two specific areas:

- IUSS Dokuchaev Award
- IUSS Liebig Award

Eligible nominees and nominators are members of the IUSS. Each award consists of an engraved medal, a certificate, a US\$1000 honorarium, and financial support to attend the presentation at the World Congress of Soil Science. For nomination procedures, please contact M.B. Kirkham ([mbk@ksu.edu](mailto:mbk@ksu.edu)). Submissions are due by 8 June 2013.

## Guy Smith Medal Award

The IUSS Guy Smith Medal Award Committee, is pleased to invite you to propose nominees for the forthcoming Guy Smith award. The next award will be handed over at the event of the Soil Classification Meeting, to be held from June 11-14, 2012, in Lincoln, Nebraska, USA ([http://clic.cses.vt.edu/IUSS1.4/Conf\\_Soil\\_Classification\\_2012/](http://clic.cses.vt.edu/IUSS1.4/Conf_Soil_Classification_2012/)).

The awardee should have the following qualifications: She/he must either have made a significant scientific contribution that has advanced the field of soil classification. Be an active member, honorary member, or formerly active member of a national or international soil science professional society; and the medal is not invested posthumously. Present officers of the Commission and related Working Groups of IUSS cannot be nominated. The proposal for nomination should comprise a short text, including the main steps of the scientific career of the nominee, her/his most relevant scientific publications and major contribution to the development of soil classification. We look forward to receive your proposals by e-mail to: [seppe.deckers@ees.kuleuven.be](mailto:seppe.deckers@ees.kuleuven.be); [lanjos@ufrj.br](mailto:lanjos@ufrj.br); [etingof@glasnet.ru](mailto:etingof@glasnet.ru)

## Institute of Professional Soil Scientists launch Working with Soil

The UK Government Department of Environment Farming and Rural Affairs (Defra) Deputy Chief Scientific Advisor, Dr Miles Parker, helped launch *Working with Soil on the 20th July in London*. Devised by the Institute of Professional Soil Scientists (IPSS), this

new professional competency scheme identifies minimum qualifications, skills and knowledge for practising soil scientists carrying out a range of key tasks. IPSS aims to establish the scheme as the *de facto* standard for identifying competent contractors in the field of soil science. Miles stated that 'Defra welcomes initiatives, such as the IPSS Working with Soils Competency Statements, that aim to improve the quality of professional soils advice'. What was launched is the first phase of IPSS's *Working with Soil* initiative. The Institute plans to expand the scheme and to develop a tailored training programme for those wishing to achieve the various standards. Says Dr Lascelles, "This is a new venture for us and we are very keen to hear back from users of the scheme on how *Working with Soil* can be developed to better fit their needs. We are pretty sure the scheme will evolve over time but we are also absolutely certain that it is needed. We need urgently to attract more young scientists into a career in soil science. It must be a more rewarding and worthwhile choice for our graduates and postgraduates and we need to identify clear career paths for those wishing to become professional soil scientists. Success in achieving a sustainable professional community and greater societal and industry recognition of the value of soil science will help deliver a well managed and sustainable soil resource to support current and future generations. That, ultimately, is what *Working with Soil* is all about."

## Soil and spatial planning (Suoli e pianificazione)

The working group Soil and spatial planning (*Suoli e pianificazione*) of the Emilia-Romagna Region (Italy) is dealing with an integrated analysis of the man's activities which have an impact on soil. We are particularly interested to share our activities and, briefly, we would like: to inform on the earth beneath our feet, 'the soil': what it is, why it is important, essential to life as the air we breathe or the water we drink; to offer news, photos, update, research, studies and everything that happens about the soil; to create opportunities for discussion, exchange of knowledge, increasing our awareness of the soil on which we walk. For this purpose we set up three work and discussion spaces, ready for any contribution: the web pages "Suoli e pianificazione", (for the moment only in Italian) hosted in the web site of the Geological, seismic and soil survey of the Regione Emilia Romagna at the following address: <http://www.regione.emilia-ro->

[magna.it/wcm/geologia/canali/suoli\\_pianificazione.htm](http://magna.it/wcm/geologia/canali/suoli_pianificazione.htm). The web site contains basic information about soil, researches and case studies. You could contribute (English language is encouraged) sending the material to [suoliepianificazione@regione.emilia-romagna.it](mailto:suoliepianificazione@regione.emilia-romagna.it). Facebook fan page 'RER – Che terra pesti' at the address: <http://www.facebook.com/cheterrapesti>. The page contains news and discussion and it is open to the fans. Comments, posts, news, videos, photos or any contributions oriented to improve the knowledge and the awareness of the soil are welcome. To interact with the page you have just to click the 'I like' button from your Facebook profile. The Twitter profile 'Che terra pesti' at the address: <http://twitter.com/cheterrapesti>. The profile is a dynamic place of information exchange. We would like to use it also to have a real time feedback of public events linked to the soil and the land planning. It should be nice to have your contribution in terms of info discussion or real time reporting of public events such as meeting or congress. To interact with "cheterrapesti" you must have a twitter account and follow @cheterrapesti

## IFA fertilizer glossary



The glossary is now available on-line in five languages: English, French, German, Spanish and Chinese. Revisions have been made since 1980 by groups of experts brought together in IFA's Agricultural Committee. There are more than 150 terms and expressions related to fertilizer use, soil science, fertilizer manufacture and analysis, and application machinery and methods. The glossary is organized in five sections, one for each language. Terms are listed in alphabetical order with brief definitions. In some cases there is no equivalent term in other languages, which explains the unequal number of entries in different sections. In some cases the nearest equivalent terms may differ from one language to another. The glossary is a key tool requested by a large majority of members. More information at the IFA website.

## Newsletter Commission 1.4

The IUSS Commission 1.4 Soil Classification decided to start publishing a Newsletter. It will be issued two times a year and is supposed to report the most important events related to classification of soils. Though relevant IUSS Working Groups "World Refer-

ence Base" and "Universal Soil Classification" publish their own Newsletters, the Commission will also report shortly the most important activities of these groups. The first issue is already available and covers the following topics: 1) Greetings From the New Chair, 2) New Officers of The Commission and Soil Classification-Related Working Groups, 3) Universal Soil Classification, 4) Guy Smith Medal: Rudi Dudal Presented First Guy Smith Medal, 5) Reports on The Meetings, 6) Forthcoming Meetings, 7) New Books, and 9) Historical Paper. The latter section is supposed to be regular in the Newsletter, presenting the most important old papers related to soil classification. In this issue a chapter from a book by Roy Simonson on the history of soil classification is presented. The Newsletter is available on [www.iuss.org](http://www.iuss.org)

## Spanish e-learning resource on soil science

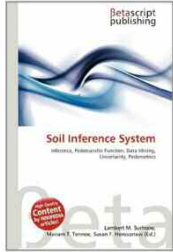
Edafos is a e-learning resource that provides a comprehensive review of the fundamental concepts and processes of soil science in Spanish. It is a multimedia-interactive program with different modules that after outlining the study of soil components goes on to examine the main factors and processes of soil genesis explaining the mechanisms of soil processes. A better understanding of all these new ideas is facilitated by the use of animations, which can illustrate the processes in a more effective manner than static print media. The program ends with the possibility of self-assessment questions obtaining an automatic punctuation. It can be useful from Secondary Education on Natural Sciences to degrees on Agricultural or Environmental Engineering see: [www.cienciadelsuelo.es](http://www.cienciadelsuelo.es)

## New IUSS Cooperating Journal

"Soil Science and Plant Nutrition is the official English journal of the Japanese Society of Soil Science and Plant Nutrition (JSSSPN, Webpage: <http://jssspn.jp/index.html>), and publishes original research and reviews in soil physics, chemistry and mineralogy; soil biology; plant nutrition; soil genesis, classification and survey; soil fertility; fertilizers and soil amendments; environment; socio cultural soil science. 6 issues per year. Publisher: Taylor & Francis Group, Abingdon, UK. Webpage: <http://www.informaworld.com/tssp> Personal subscription rate for IUSS members for 2011: US\$ 146.00".



## Caveat Emptor: Soil Science Books(?) from Alphascript and Betascript



One can find a book on sale on Ebay with the title “Soil Inference System”. The book is 108 pages with an ISBN. But, if you take a clear look at the cover, you’ll see “High Quality Content by WIKIPEDIA articles!” There seems to be a Print-on-Demand company

under imprints such as Alphascript and Betascript which has harvested Wikipedia articles, and made them into a series of books, many of them with soil titles. Yes, the books have derived all their contents from Wikipedia. This appears to be a scam which seems to have started last year. So, this is just a warning to people not to get tricked. Alphascript and Betascript are imprints of VDM Publishing (Verlag Dr. Muller) which apparently will publish any book including undergraduate and postgraduate theses. Amazon.com and various online book shops are selling these books. There are about 80 soil-related titles available from Amazon, with titles from “Serpentine Soils” to “Soil Classification”, “Soil Physics”, “Biochar”, “Soil Function”, “World Reference Base for Soil Resources” etc. These some 80 ‘soil’ titles were all published in 2010, by 3 very productive editors: LAMBERT M. TIMPLEDON, MIRIAM T. MARSEKEN, SUSAN F. SURHONE. All together they have edited more 260,921 books, all available from Amazon. That must beat any academic record one can imagine. One wonders what their h indices are? Could be very high if they refer to all the other ones in each book. Further investigation has revealed that this approach is not even original, Philip M. Parker has ‘patented a method to automatically produce a set of similar books from a template which is filled with data from database and internet searches’ see [http://en.wikipedia.org/wiki/Philip\\_M.\\_Parker](http://en.wikipedia.org/wiki/Philip_M._Parker) All sad really, but probably inevitable. An automatic reading machine requires to be patented so humans don’t have to bother with this.

# 5 questions to a soil scientist

## 5 questions to Lucia Cunha dos Anjos

**Position:** Associate Professor (since 1983)

**Age:** 54

**Address:** UFRRJ – Soils Department, Seropédica, RJ.  
Brazil

**E-mail:** [lanjos@ufrj.br](mailto:lanjos@ufrj.br)



### 1. When did you decide to study soil science?

During my undergraduate course, in Agronomy, in the last two years before graduation, I started to participate of research projects and as a teaching assistant at the Federal Rural University of Rio de Janeiro (UFRRJ), Soils Department.

### 2. Who has been your most influential teacher?

I can not name one influential teacher only. The first contact was in the Fundamentals of Soil Science course at UFRRJ, through Professor Renato Nascimento. He taught me that rocks, landscapes and soils are related and that they are decisive to agriculture. Later, I became a teaching assistant at the Soil Physics Laboratory, having as advisor Professor Joelito de O. Rezende, the best undergraduate professor ever. During my Master program, Professor Doracy P. Ramos aimed my life at Soil Genesis and Classification, and his field knowledge became my reference guide. Then, during my Ph.D. at Purdue University, Don Franzmeier, with his wise and serene guidance became my role model as advisor.

### 3. What do you find most exciting about soil science?

That it is the base of everything in the ecosystems,

and to learn about soil it is required interaction with so many other fields of science, ecology, biology, geology, geography, physics, math, sociology, and so on.

### 4. How would you stimulate teenagers and young graduates to study soil science?

By showing soil in the field and relating it's properties and importance to the web of life.

A perfect example is the Smithsonian and SSSA project – *Dig it! The secrets of soil*. Another good experience is the Soil Judging Contest, which involves many college and undergraduate students in US.

### 5. How do you see the future of soil science?

The future of soil science is to be integrated with other sciences. The interdisciplinary studies will be required for the advance of any science, including soil science. The efforts of IUSS to produce a Universal Soil Classification System (USC) follow in this direction. The soil scientists will be required to change, to break pre-concepts, but this should always happen for any science to expand.

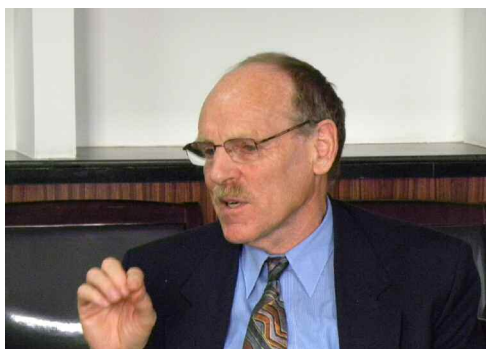
## 5 questions to Jock Churchman

**Position:** Adjunct Senior Lecturer (since 2009)

**Age:** 67

**Address:** The University of Adelaide, School of Agriculture, Food & Wine, Australia

**E-mail:** [jock.churchman@adelaide.edu.au](mailto:jock.churchman@adelaide.edu.au)



### 1. When did you decide to study soil science?

I have never formally studied soil science. My initial degree, in New Zealand, was in chemistry. However, none of the PhD topics offering in pure chemistry in the year I finished attracted me much, and I spent the year beginning a BA in humanities (completed in 2005, 40 years later, with a thesis on the philosophical status of soil science). An enjoyable year nonetheless decided my preference for the quantitative over the qualitative and I took up a scholarship offered by the local ceramics industry for basic research into the clay mineral, halloysite. I enjoyed this very much, and also became aware of the important role of clays in soils. I went into soil science via a post-doc at the University of Wisconsin-Madison in 1971.

### 2. Who has been your most influential teacher?

My PhD oral examiner in New Zealand, Dr Morice Fieldes, was an early mentor on clays in soils. He recommended me to Professor ML Jackson at Wisconsin, who especially taught me the value of bold hypotheses. I have learnt much from such colleagues as Benny Theng, Kevin Tate, David Lowe and Roger Parfitt in New Zealand, from Keith Norrish, Phil Slade, Ralph Foster, Bill Emerson, Pichu Rengasamy and Will Gates in South Australia and, through study leave, from Donald Payne in Reading, England and Bob Gilkes in Western Australia. To do research is to continue to learn, including from students and even journal reviewers!

### 3. What do you find most exciting about soil science?

My journey in soil science has been from the strictly quantitative and relatively static area of clay mineral crystal structures, where the laws of chemistry and physics rule, into the much more dynamic realms of soil structure, where biology dominates and systems change with time, often over quite short time scales. Furthermore, as more new, often expensive, instruments are applied to study them, the more evident it becomes that even the inorganic components of soils are almost infinitely variable and also that they largely occur in an infinite variety of associations with other soil components.

### 4. How would you stimulate teenagers and young graduates to study soil science?

To study soils is to study materials and systems that are surely among the most fascinating phenomena in nature. Soil science demands many skills, thanks to its contributing scientific disciplines, including geology, crystallography, mineralogy, computer mapping, chemistry, biochemistry, physics, hydrology, mechanics, plant physiology, ecology, microbiology, and computer modeling. There are big scientific challenges involved in integrating information from all of these to distill out the essence of soils. There are also great challenges facing humanity, especially those of feeding the growing human population while sustaining the planet. The idea of tackling these can appeal to the idealism of many young people and meeting these challenges will necessarily involve soils as the basis of all terrestrial life.

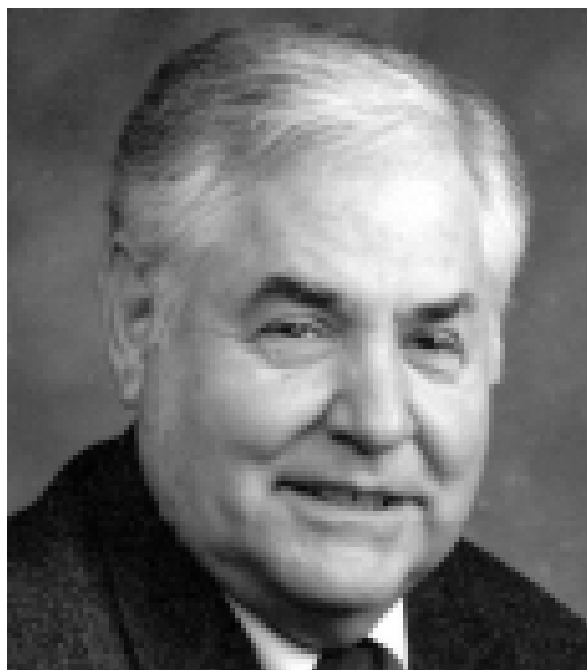
### 5. How do you see the future of soil science?

Soils are so complex that they present major scientific opportunities, especially for interdisciplinary research. Even so, soils ultimately grow most of our food and much of the material for our shelter, while filtering and recycling much of our waste. The need for solutions to the problems involved in understanding soils will only become greater as population increases, as affluence grows and as attendant environmental problems and shortages become more pressing. These scientific and humanistic challenges need more of both the brightest and the best to study soils so as to ensure the optimal use of this valuable resource for future generations. It only (!) remains to convince politicians, educationalists and financiers of their importance.

## In Memoriam

# Wilford Robert Gardner

1925-2011



Dr. Wilford Robert Gardner, 85, passed away at his home in Mapleton, Utah on May 20, 2011. Wilford was born October 19, 1925 to Robert and Nellie Barker Gardner in Logan, Utah. He is a veteran of World War II and served with the Army Corps of Engineers in the European and Pacific Theatres of Operation. He married Marjorie Louise Cole on June 9, 1949 in the Logan Temple. Wilford earned his Bachelor of Science from Utah State University in 1949, during which time he also performed as a flutist in several musical ensembles including a woodwind quintet. He went on to complete a Master of Science degree in soils physics and a Ph.D. in soil physics and mathematics at Iowa State University, where he worked under Professor Don Kirkham. After completion of his doctorate he accepted a research position at the U.S. Salinity Laboratory in Riverside, California where he worked closely with L.A. Richards. Subsequently he received a professorship at the University of Wisconsin where he taught from 1966 through 1980. During this time he served as a Senior Fulbright Fellow and in 1972 was awarded the Medal

of Honor by the University of Ghent, Belgium. In 1980 he accepted a position at the University of Arizona as head of the department of Soil and Water Science. From 1987 and 1994, he served as Dean of the College of Natural Resources at the University of California, Berkeley. During his tenure at Berkeley he also served as Bishop of the Richmond 1st Ward. Over the course of his career, he published over 140 books, chapters, and scholarly articles. He served as an active member of many associations devoted to soil science, including the American Association for the Advancement of Science, the American Society of Agronomy, the International Soil Science Society, the Soil Science Society of America, the Water Science and Technology Board of the NRC. He was the first USU graduate to be elected to membership in the National Academy of Sciences. He was the president of the physics committee for the International Soil Science Society, head of the delegation to International Union of Soil Science, chair of the United States National Committee for Soil Science, and served as president of the Soil Science Society of America.



## In Memoriam

# Arieh Singer

1934-2010

### **From my memory of Arieh Singer, an eminent Soil Scientist**

On 26 of March in 2010 after short severe illness Arieh Singer passed away. Arieh Singer was born on 14 of May 1934. At the Hebrew University of Jerusalem he did M. Sc. agriculture. He obtained there his PhD in soil science and he was teaching in the Rehovot-Campus throughout his career, starting as a lecturer and ending in 2002 as a Professor for soil science. As visiting scientist, guest professor or consultant he spent long times in Australia, Canada, South Africa, China, central America and in Heidelberg and Stuttgart-Hohenheim (Germany).

With Arieh Singer we lost an eminent soil scientist, who contributed many frames and poles to the building of soil science in the 20<sup>th</sup> Century. With his great wisdom, his friendship and his very polite, sometimes shy manners, he opened many young soil scientists from all over the world the door into soil science. He was a worldwide accepted specialist in soil development and soil mineralogy. On the rare minerals of Sepiolite and Palygorskite, he was the top scientist in the world. During his long career, he touched many soil-scientific and geo-scientific topics. Even in those areas, where he seemed not to be a specialist, he contributed significant new ideas and findings. Through his independent thinking, his acknowledgment of findings of other scientists, he always came through into the centre of the problem, and he did advice the right steps. Its impact in soil science will continue.

My group lost a friend. Arieh spent three times sabbatical at Hohenheim. He worked with us in the laboratory, together we published papers and we spent some time in our houses with the family. We went to the field and met at many conferences. Especially Arieh was a good adviser and supervisor of several of my students and co-workers. When he passed away, we still had plans, what we can do together. Without him we will hardly be possible

to carry it out. He is survived by his wife two daughters and four grandchildren.

We will keep him in a good memory forever.

*Karl Stahr*

*Professor of Soil Science and Petrography*

*Hohenheim University*

*Chair Division I, International Union of Soil Science*

## In Memoriam

# J. Keith Syers


1919-2011



At a time of great need agricultural research has lost of one of its greatest and most respected advocates. Professor J. Keith Syers died suddenly at his home in Thailand on July 16th aged 72. Keith Syers was an internationally recognised soil chemist who in his long and highly productive career produced almost 350 scientific publications and five books on soils and soil-plant interactions. He did much to inform the scientific debate around sustainable agriculture and food security and wrote widely on the need for integrated nutrient management; including the critical need for inorganic fertilisers in sustaining food production. In 1989 he served as Specialist Advisor to the Sub-Committee of the House of Lords (UK) European Communities Committee on 'Nitrates in Water' and more recently (2011), led the UNEP Working Group on 'Phosphorus and Food Production'.

Keith was born on May 4th 1939 in Colne, Lancashire to Hervey and Elsie Syers and is survived by his younger sister Rosemary and by his children Richard, Josie and Amanda. He attended Skipton Grammar School before going to Durham University (later to become part of Newcastle University) from where he graduated with Honours in Soil Science in 1960 and a PhD in 1964. Keith had a life-long interest in popular music and whilst studying would often supplement his income playing piano in the bars around Newcastle. One of Keith's core beliefs was to 'work hard but to have fun doing it', any money he made from playing piano was usually reinvested behind the bar.

Keith Syers started his Professional career in 1964 when he was appointed as a Postdoctoral Fellow in the Department of Soil Science at Lincoln College in New Zealand where he worked on soil fertility in pastures. He moved to the University of Wisconsin-Madison in 1967 to work under Professor M.L. Jackson, a pioneer of fundamental studies on soil and fertiliser potassium and phosphorus. His time with Jackson in Wisconsin (1967-1972) was regarded by Keith as one of the most rewarding and stimulating research environments of his career and the experience helped shape Keith's approach and thinking in soil science. In 1972, aged only 33, he returned to New Zealand to the foundation Chair in Soil Science at Massey University where he built one of the world's leading soils teaching and research departments. During this time (1981) he was elected as Fellow of the Royal Society of New Zealand and it was whilst at Massey that he built his reputation as a research leader in the use of fertiliser P and S in agriculture. He was one the first to show using autoradiography that phosphate ions can gradually diffuse into soil crumbs, thus explaining the decrease over time in the plant availability of phosphate fertilisers added to soils. His thinking about phosphorus and its behaviour in soils over many years led him recently to question and challenge whether agriculture was in fact facing a period of 'peak phosphorus'.



He returned to Newcastle University in 1986 as Professor of Soil Science and became Dean of the Faculty of Agriculture and Biological Sciences in 1989. During his time at Newcastle he was responsible for reorganising teaching and research in the agricultural and environmental sciences and served on many key national and international committees including the Scientific Advisory Committee of SCOPE Phosphorus Cycling Project, the Royal Society Interdisciplinary Science Committee and the Governing Board of CAB International. In 1995 he was appointed Chair of the Advisory Committee of the World Phosphate Institute.

Keith Syers spent much of his professional career working on problem soils and worked tirelessly through his role on international committees and advisory groups to increase sustainable food and fibre production in the developing world. He believed that the answer to future food security lay in good science and education combined with local knowledge and technology sharing. In 1992 he moved to Thailand on secondment to join the International Board for Soils Research and Management (IBSRAM) as Director of Research before returning to Newcastle in 1995. On his retirement from Newcastle in 2000, he returned to Thailand as Vice President for International Relations at Naresuan University in Phitsanulok.

His outstanding contributions to soils research have been recognised internationally and he was an elected Fellow of the Soil Science Society of America, of the New Zealand Society of Soil Science, and presented the prestigious Russell Lecture for the British Society of Soil Science in 2007. Sadly, his untimely death has meant that his latest honour, awarded in recognition of his life-time contribution to soil science, the Soil Science Society of America's Distinguished Service Award, has to be awarded posthumously in San Antonio, USA later this year.

Keith will be remembered by those who knew him well as a larger than life figure. As someone who really knew what it meant to 'work hard but to have fun doing it'. He will be remembered fondly by the many postgraduate students and early career researchers he supported and mentored throughout their careers. Many owe their subsequent successes to the timely intervention and example shown by Keith Syers. He had a generosity

of spirit and could always make time to help others when they needed it most. Soil science and soil chemistry has lost one of its great figures. He will be deeply missed.

# Report on the 14<sup>th</sup> Scientific Conference of the Philippine Society of Soil Science and Technology



The 14th Annual Scientific Conference of the Philippine Society of Soil Science and Technology (PSSST) was held at the Visayas State University (VSU) in Baybay City, Leyte last 25-27 May 2011. About 140 soil scientists, soil practitioners, and agriculturists working in universities, government agencies, non-government organizations, and private companies throughout the Philippines attended the conference. Prof. Dr. Karl Stahr, the Chairman of Division I of the International Union of Soil Sciences (IUSS) from the University of Hohenheim, Germany, gave the keynote lecture about the limestone soils in Southeast Asia particularly Thailand, Vietnam, and Laos. In addition, Dr. Gamini Keerthisinghe of the Australian Centre for International Agricultural Research (ACIAR) gave a plenary paper on the challenges to sustainable crop production.


A total of 26 papers were presented dealing with various soil topics ranging from fertilization to soil characterization and geospatial modeling. Moreover,

about 30 poster papers were presented. The presenters of the best oral and poster papers were awarded with certificates and cash prizes.

A post-conference tour was organized to Lake Danao located at 730 m ASL in the central highlands of Leyte island. On the way to the lake, the participants were able to observe the following: 1) the City of Ormoc, one of the cleanest and most progressive cities in the Philippines; 2) the mouth and headwater of Anilao River which caused the tragic flooding of Ormoc City that killed 8,000 people in 1991; 3) the volcanic landscape which is used for large-scale sugarcane and vegetable production; 4) the beautiful 1,912 ha Lake Danao along the Philippine Fault Line in the middle of the rainforest; 5) the Andisol soil (Typic Hapludand) which is typical of the volcanic landscape; and 6) the Tongonan Geothermal Plant, one of the largest in Asia.

The current PSSST officers who come from different universities and government agencies are: Constanca G. Mangao, President; Nenita de la Cruz, Vice





President; Angelita C. Marcia, Secretary; Purisima P. Juico, Treasurer; Anabella B. Tulin, Auditor; Rowena L. Castillo, Press Relations Officer; Fe B. Perlas- Business Manager; Virginia M. Padilla, Trustee; Redia N. Atienza, Trustee; Constancio A. Asis, Jr, Trustee; Danilo Mendoza, Trustee; and Alexander W. Fagyan, Ex Officio Member; Cezar P. Mamaril, Adviser; and Eduardo P. Paningbatan, Adviser.

The conference was hosted by the Department of Agronomy and Soil Science of Visayas State University, one of the leading soil science departments in the Philippines today. It was the first PSSST conference that was attended by an IUSS officer (Prof. Stahr).

*Prof. Victor B. Asio  
Head, Dept of Agronomy and Soil Science,  
VSU, Chair, Local Organizing Committee*

# New Publications



**Peatlands of the Western Guayana Highlands. Properties and paleogeographic significance of peats.** Edited by J.A. Zinck and O. Huber. 2011. Springer, Ecological Studies Vol. 217. ISBN 978-3-642-20137-0.

The Guayana Highlands in northeastern tropical America, rising from lowland rain forests and savannas up to 3000 m elevation, are characterized by ancient tablelands called tepuis. The peatlands that developed on the tepuis constitute unique and fascinating ecosystems and are the focus of this volume, which starts with an overview of tropical and subtropical peats, followed by an introduction to the geo-ecological features of the Guayana region as a whole, with special emphasis on the diversity of the vegetation cover from lowlands to uplands to highlands. The core subject centers on the properties and dating of the peat deposits and the interpretation of the chronological record in terms of past environmental changes. The well illustrated book will appeal to a broad range of scientists interested in tropical highland peats, including quaternarists, soil scientists, geomorphologists, geographers, geologists, ecologists, botanists, hydrologists, conservationists, and land use planners.



**Soil Chemical Methods – Australasia.**

Australian Soil and Land Survey Handbooks Series. George E Rayment (QLD Department of Environment and Resource Management), David J Lyons (QLD Department of Environment and Resource Management). Illustrations, 520 pages,

245 x 170 mm, Publisher: CSIRO PUBLISHING, October 2010, Hardback, ISBN: 9780643067684. Price AU \$140.00.

*Soil Chemical Methods – Australasia* describes over 200 laboratory and field chemical tests relevant to Australasia and beyond. The information and methodology provided across 20 chapters is comprehensive, systematic, uniquely coded, up-to-date and designed to promote chemical measurement quality. There is guidance on the choice and application of analytical methods from soil sampling through to the reporting of results. In many cases, optional analytical 'finishes' are provided, such as flow-injection analysis, electro-chemistry, multiple flame technolo-

gies, and alternatives to chemical testing offered by near-range and mid-range infrared diffuse reflectance spectroscopy. The book supersedes and updates the soil chemical testing section of the 1992 *Australian Laboratory Handbook of Soil and Water Chemical Methods* of Rayment and Higginson, while retaining method codes and other strengths of that Handbook. Chapters cover soil sampling, sample preparation and moisture content; electrical conductivity and redox potential; soil pH; chloride; carbon; nitrogen; phosphorus; sulphur; gypsum; micronutrients; extractable iron, aluminium and silicon; saturation extracts; ion-exchange properties; lime requirements; total miscellaneous elements; miscellaneous extractable elements; alkaline earth carbonates and acid sulfate soils. In addition, there are informative Appendices, including information on the accuracy and precision of selected methods. This book targets practising analysts, laboratory managers, students, academics, researchers, consultants and advisors involved in the analysis, use and management of soils for fertility assessments, land use surveys, environmental studies and for natural resource management.



**Biocommunication in Soil Micro-**

**organisms.** Series: Soil Biology, Vol. 23, Witzany, Günther (Ed.), 1st Edition., 2011, XX, 474 p., Hardcover. ISBN: 978-3-642-14511-7.

Price 149,95 €.

Communication is defined as an interaction between at least two living agents which share a repertoire of signs. These are combined according to syntactic, semantic and context-dependent, pragmatic rules in order to coordinate behavior. This volume deals with the important roles of soil bacteria in parasitic and symbiotic interactions with viruses, plants, animals and fungi. Starting with a general overview of the key levels of communication between bacteria, further reviews examine the various aspects of intracellular as well as intercellular biocommunication between soil microorganisms. This includes the various levels of biocommunication between phages and bacteria, between soil algae and bacte-

ria, and between bacteria, fungi and plants in the rhizosphere, the role of plasmids and transposons, horizontal gene transfer, quorum sensing and quorum quenching, bacterial-host cohabitation, phage-mediated genetic exchange and soil viral ecology.



**Introducción a la Edafología. Uso y protección de suelos.** Porta J, López-Acevedo M, Poch RM. 2010. Mundi-Prensa, Madrid. ISBN 9788484764052.

This book attempts to provide a basis for the teaching by lecturers, who have their own style and academic origin, convictions and interpretations of soil science. It is a book that can be useful for teaching in the framework of the European Space of Higher Education. It consists of fourteen basic units: soil, soil functions and organizations, training and environmental factors of soil formation processes, soil field surveys, physical properties and soil behavior, inorganic components, organic matter, chemical properties and soil behavior, soil ecology and cycling of elements, soil water, soil classification according to Soil Taxonomy and World Reference Base, soil information, georeferenced databases, soil information systems, access paths to soil information and how it can be used, soil quality degradation and basis for control, and soil study in the laboratory. The objectives are outlined at the beginning of each unit, together with the recommended readings. The units begin with an exercise called “learning connection” in order to relate what is explained in the unit with what has been previously studied, and each unit ends with “knowledge and understanding”, in order to work with its theoretical contents. The book is completed with “Keys to self evaluation” to guide the student through the resolution of the proposed activities. An extensive alphabetical index facilitates consultation of the work. This book has already reached a second edition in Spanish and is also offered in Catalan.

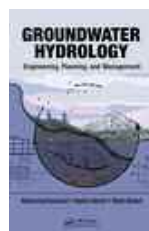


**Soil Management: Building a Stable Base for Agriculture**

Edited by Jerry L. Hatfield and Thomas J. Sauer, both of USDA-ARS National Laboratory for Agriculture and the Environment, Ames, IA.

Unique because of its treatment of soil management based on principles—the physical, chemical, and biological processes and how together they form the foundation for soil management—this book pulls it

all together. Whether new to soil science or needing a concise reference, readers will learn to integrate the science of soils with management issues and long-term conservation. Degradation of soils colliding with increasing climate variation will eventually create a local, regional, or even global crisis, but it's not too late if we implement our ever-expanding scientific understanding of soils. Hardcover, 430 pages. 2011. ASA and SSSA. ISBN: 978-0-89118-853-7.



**Groundwater Hydrology: Engineering, Planning, and Management.**

Mohammad Karamouz, Polytechnic Institute of New York University, Brooklyn, USA; Azadeh Ahmadi; Masih Akhbari, Price: \$119.95, ISBN: 9781439837566.

Written by an internationally respected professor and consultant, this textbook provides a balanced treatment of theory and practice. It examines the interface between groundwater engineering and management with tools such as data collection, simulation modeling, and economic analysis. The chapters contain the latest developments in groundwater engineering and planning. The author presents relevant modeling software applications for numerous topics including hydrology, hydraulics, planning and management, conjunctive use, and climate change implications. The book includes figures, tables, and equations as well as examples, end of chapter questions, and case studies.



**Environmental Microbiology for Engineers.**

Volodymyr Ivanov, Nanyang Technological University, Singapore, Price: \$99.95, ISBN: 9781420092349. Publication Date: November 17, 2010, Number of Pages: 438.

This book enables engineering students to understand how microbiology can be applied to environmental research and practical applications. Written specifically for senior undergraduate to graduate level civil and environmental engineering students, the textbook encompasses both fundamental and applied principles and covers topics such as the microbiology of water, wastewater, soil, and air biotreatment systems used in environmental engineering. It also covers civil engineering topics such as biocementation, biocorrosion, biofouling and biodegradation of materials. Suitable for environmental engineers with little to no biology training, this book provides a thoroughly up-to-date introduction to cur-

rent trends in environmental microbiology and engineering. Microbial classification is represented as a periodic table with theoretical connections between all prokaryotic groups and highlighting their environmental applications. The textbook includes quizzes for each chapter, tutorials and exam questions. A separate solutions manual is available with qualifying course adoption. As an instructor and an active participant in the environmental and civil engineering community, the author has recognized the need for field-specific microbiology instructional material, and has constructed a concise, relevant text for both students and professionals.

**European Journal of Soil Science**, PEDOMETRICS Special Issue, June 2011. Commissioned in honour of Richard Webster, a former Editor in Chief of EJSS and a leading figure in the development of Pedometrics and the formation of the Pedometrics Commission. There are thirteen papers on a wide range of topics including soil geostatistics, Bayesian methods, sampling, sensors, digital soil mapping and wavelets. Website: [wileyonlinelibrary.com/journal/ejss](http://wileyonlinelibrary.com/journal/ejss)

**Soil Use and Management**. Topics covered include Soil and nutrient management, gaseous emissions from soils, significance and management of soil organic matter, impact of land management on soils, soil assessment and degradation, soil physical properties. Special Issue on Soil Quality, September 2010. Virtual Issues: Key Papers in Soil Use and Management, March 2011; Soils and Nitrous Oxide Research, May 2010.

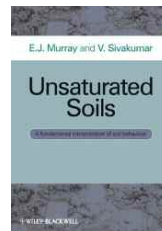
Website: [wileyonlinelibrary.com/journal/sum](http://wileyonlinelibrary.com/journal/sum)



**Digital Terrain Analysis in Soil Science and Geology**. By I.V. Florinsky (Institute of Mathematical Problems of Biology, Russian Academy of Sciences). ISBN: 978-0-12-385036-2. Hardcover, 430 pages, October 2011, 2011, Elsevier - Academic Press. Price \$149.95.

This book provides an integrated view of the theory, principles, and methods of digital terrain modeling in the context of multi-scale problems of soil science and geology. *Digital Terrain Analysis in Soil Science and Geology*, based on the author's original interdisciplinary research, is divided into three parts. The first part represents the state-of-the-art in the field outlining mathematical methods used in digital terrain modeling. The second part looks at methods for

analysis, modeling, and mapping of spatial distribution of soil properties using digital terrain analysis. The third part considers techniques for recognition, analysis, and interpretation of topographically expressed geological features. The book is addressed to GIS scientists, soil scientists, geologists, geoscientists, geomorphologists, and geographers (at scholar, lecturer, and postgraduate student levels, with mathematical skills), as well as GIS professionals in industry and research laboratories focusing on geoscientific and soil research.



**Unsaturated Soils: A fundamental interpretation of soil behaviour.**

E.J. Murray, V. Sivakumar, ISBN: 978-1-4443-3212-4. Paperback, 304 pages, August 2010, Wiley-Blackwell. Price – 84.00.

An understanding of the mechanical properties of unsaturated soils is crucial for geotechnical engineers worldwide, as well as to those concerned with the interaction of structures with the ground. This book deals principally with fine-grained clays and silts, or soils containing coarser sand and gravel particles but with a significant percentage of fines. The study of unsaturated soil is a practical subject, linking fundamental science to nature. Soils in general are inherently variable and their behaviour is not easy to analyze or predict, and unsaturated soils raise the complexity to a higher level. Even amongst practicing engineers, there is often lack of awareness of the intricacies of the subject. This book offers a perspective of unsaturated soils based on recent research and demonstrates how this dovetails with the general discipline of soil mechanics. Following an introduction to the basic soil variables, the phases, the phase interactions and the relevance of soil structure, an up-to-date review of laboratory testing techniques is presented. This includes suction measurement and control techniques in triaxial cell testing. This is followed by an introduction to stress state variables, critical state and theoretical models in unsaturated soils. A detailed description of the thermodynamic principles as applied to multi-phase materials under equilibrium conditions follows. These principles are then used to explore and develop a fundamental theoretical basis for analyzing unsaturated soils. Soil structure is broken down into its component parts to develop equations describing the dual stress regime. The critical state strength and compression characteristics of unsaturated soils are examined and it is

shown how the behaviour may be viewed as a three-dimensional model in dimensionless stress-volume space. The analysis is then extended to the work input into unsaturated soils and the development of conjugate stress, volumetric and strain-increment variables. These are used to examine the micromechanical behaviour of kaolin specimens subjected to triaxial shear strength tests and lead to observations not detectable by other means.

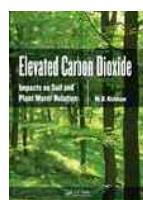
**Soil Mechanics.** NOVA, ISBN: 978-1-84821-102-5, Hardcover, 416 pages, June 2010, Wiley-ISTE. Price €152.40. Knowledge of the behavior of soil mechanics is essential for forecasting the internal displacements and actions of any construction. This book, although theoretical at first glance, also offers a more practical scope, giving readers adequate tools to plan geotechnical projects correctly.



**Soil Evaluation - Materials for Lectures and Seminars.** By Starodubtsev V.M., Petrenko L.R., and Struk V.S. – Kyiv: AGRARMEDIA Group, 2011. – 98 p. ISBN 978-966-2424-37-9. Soft cover.

The manual provides its readers with a know-how pertaining to different ways and aspects of soil and land evaluation in Ukraine and some other countries. Soil areas (mapping units) as well as land plots can be evaluated in grade points, from 0 to 100, regardless of their multiform peculiarities and ways of practical utilization. General grades allow competing the soils and lands regardless of the crops grown on them. Such grades pertain to potential productivity of evaluated objects. They also allow comparative economic analyses of farms and other enterprises, using lands as a means of production. Partial soil and land evaluation makes possible to estimate the potential productivity of soils and land areas with regard of the crop grown on them or any other form of their employment in agriculture, horticulture, and cultivation of vegetables and fruits. The book deciphers the application of the so-called “desirability functions”, proposed by T.O. Grinchenko for both general and partial soil, climate, and land area evaluation. It also directs the readers’ attention to the weak points of different methods of soil and land evaluation in Ukraine, such as Kuzmichov, Siry, Novakovsky et al., and Medvedyev et al methods. The solution of the problem of soil and land evaluation in Ukraine is still not “waiting sound the corner”. At the same time, such

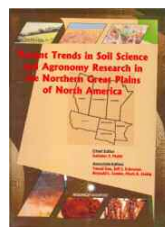
solution is must in the employment of such an evaluation in various decision-making activities of land users, economists, traders, ecologists, and, especially so, of land surveyors and proper use managers. The book will be useful to the graduate university students of agrobiological, soil science, ecology, land management, and agricultural economics.



**Elevated Carbon Dioxide: Impacts on Soil and Plant Water Relations.**

By M.B. Kirkham. 2011. CRC Press, Taylor and Francis Group, Boca Raton, Florida. 399 pages. ISBN: 978-1-4398-5504-1.

Between 1958 and 2008, the CO<sub>2</sub> concentration in the atmosphere increased from 316 to 385 ppm. Continued increases in CO<sub>2</sub> concentration will significantly affect long-term climate change, including variations in agricultural yields. Focusing on this critical issue, *Elevated Carbon Dioxide: Impacts on Soil and Plant Water Relations* presents research conducted on field-grown sorghum, winter wheat, and rangeland plants under elevated CO<sub>2</sub>. It describes specific results from pioneering experiments performed over a seven-year period in the Evapotranspiration Laboratory at Kansas State University, along with experiments appearing in peer-reviewed journal articles.



**Recent Trends in Soil Science and Agronomy Research in the Northern Great Plains of North America.**

By Malhi, S.S., Gan, Y.T., Schoenau, J.J., Lemke, R.L. and Liebzig, M.A. (eds.), 2010. Research Signpost, Trivandrum, Kerala, India.

ISBN: 978-81-308-0422-4, 427 pp. The book “Recent Trends in Soil Science and Agronomy Research in the Northern Great Plains of North America” summarizes published research in soil science and agronomy from various field experiments conducted in the soil-climatic/agro-ecological regions of the Northern Great Plains of North America. Collectively, the book represents an up-to-date compilation of scientific information related to the sustainable management of dryland cropping systems in this important agricultural area. Fifteen chapters, written by Canadian and U.S. scientists, review a myriad of topics focused on developing a better understanding of dryland cropping systems and their management. Specific topics reviewed in the book include the impact of soil, crop and

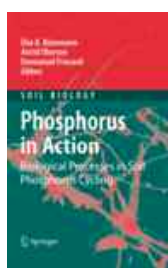
fertilizer/nutrient management practices, land use, landscape, organic amendments, and other parameters in dryland cropping systems on crop production, economics, plant diseases, grain and forage quality, nutrient accumulation and distribution in soil, soil properties, microbial diversity, greenhouse gas emissions, and water-, nutrient- and energy-use efficiency. Information in the book may be most useful to researchers and practitioners in the Prairie Provinces of Canada, adjoining northern U.S. states, and other parts of the world possessing similar soil-climatic attributes as the Northern Great Plains.



**Bodenkundliches Praktikum Exercises in Pedology** - An Introduction into Soil Analysis and Interpretation for Soil Scientists, Geologists and Ecologists, especially Agriculturists and Forester (in German). Blume, Hans-Peter, Stahr, Karl; Leinweber, Peter. 3rd Edition, 2011, XIII, 255 p., Hardcover.

ISBN: 978-3-8274-1553-0. Price 39,95 €.

Students are instructed, how to describe, to classify and to map soils as well as to measure their water, air and nutrient dynamics in the field. They also find several methods (mainly ISO Standards), to study their physical, chemical, mineralogical and biological conditions. The interpretation of soil data is shown: How to reconstruct the direction, the intensity and the duration of different soil forming processes? Advice for site property assessment is given. How to classify the rooting capability, the water, air and nutrient conditions of soils, as well as their microbial activity, their erosion risk, and the risk of groundwater poisoning. At the end conclusions are drawn for an improved land use and the necessity of meliorations.



**Phosphorus in Action.** Biological Processes in Soil Phosphorus Cycling. Series: Soil Biology, Vol. 26. Bünemann, Else K.; Oberson, Astrid; Frossard, Emmanuel (Eds.) 1st Edition., 2011, XV, 483 p., Hardcover. ISBN: 978-3-642-15270-2. Price 149,95 €.

Phosphorus (P) is a finite resource which is essential for life. It is a limiting nutrient in many ecosystems but also a pollutant which can affect biodiversity in terrestrial ecosystems and change the ecology of water bodies. This book collects the existing, up-to-date information on biological processes in soil P cy-

cling, which to date have remained much less understood than physico-chemical processes. The methods section presents spectroscopic techniques, characterization of microbial P forms, as well as the use of tracers, molecular approaches and modeling of soil-plant systems. The section on processes deals with mycorrhizal symbioses, microbial P solubilization, soil macrofauna, phosphatase enzymes and rhizosphere processes. On the system level, P cycling is examined for grasslands, arctic and alpine soils, forest plantations, tropical forests, and dryland regions, while aspects of P management with respect to animal production and cropping are also presented. The final chapter examines the interactions between global change and P cycling.



**Understanding Soils in Urban Environments.** Pam Hazelton (University of Technology, Sydney), Brian Murphy (NSW Department of Environment and Climate Change), 160 pages, Publisher: CSIRO Publishing, February 2011, Paperback, ISBN: 9780643091740. Price AU \$ 59.95.


Soil properties such as water retention, salinity and acidity are not just issues for agriculture and forestry. They are equally as significant in creating environmental and structural problems for buildings and other engineering works. As an increasing proportion of the world's population is living in cities, and building and related infrastructure development continues, these problems assume ever-greater importance. In addition, existing works contribute to urban soil erosion and pollution as well as increased levels of urban runoff. Understanding Soils in Urban Environments explains how urban soils develop, change and erode. It describes their physical and chemical properties and focuses on specific soil problems, such as acid sulfate soils, that can cause environmental concern and also affect engineering works. It also addresses contemporary issues such as green roofs, urban green space and the man-made urban soils that plants may need to thrive in. It provides a concise introduction to all aspects of soils in urban environments and will be extremely useful to students in a wide range of disciplines, from soil science and urban forestry and horticulture, to planning, engineering, construction and land remediation, as well as to engineers, builders, landscape architects, ecologists, planners and developers.

**Fundamentals of Soil Science. Second edition, 2009.**

Indian Society of Soil Science, New Delhi, India. xvi + 728 p. ISBN 81-903797-4-7. Hardcover. During my recent trip to India, I had the opportunity of visiting Dr. R.K. Rattan at the Division of Soil Science and Agricultural Chemistry, Indian Agricultural Research Institute, New Delhi. On his desk I saw a copy of the second edition of the book *Fundamentals of Soil Science*. I was interested in it particularly because I had reviewed the first edition published in 2002 (IUSS Bulletin 102, p. 79-80). I offered to review the second edition. This second edition of the highly successful textbook contains revised and updated information. The authoritative text begins with an introductory chapter by Dr. J.S. Kanwar, Past President of the Indian Society of Soil Science and the International Society of Soil Science, and includes chapters on weathering and soil formation, soil classification, soil survey and mapping, physical properties of soils, soil water, soil air and soil temperature, tillage, water management, soil erosion and soil conservation, chemical composition of soils, soil colloids and ion exchange in soil, soil acidity, soil salinity and alkalinity, mineral nutrition of plants, nitrogen, phosphorus, potassium, secondary nutrients, micronutrients, analysis of soil, plant, and fertilizer for plant nutrients, soil fertility evaluation, soil biology and biochemistry, soil organic matter, fertilizers, manures and biofertilizers, soil fertility management, soil and water quality, soil pollution and its control, and soil management for sustainable farming. The text is supported by many tables, figures, and references. The book has a comprehensive Subject Index and concludes with the following appendices: SI units, conversion factors for SI and non-SI units, and color plates of soil profiles, soil and water conservation measures, and nutrient deficiency symptoms. The type and layout of the book have been well chosen for easy reading. The primary objective of the authors is to provide students and teachers with a comprehensive textbook on soil science. Although the information focuses on Indian soils, the book deals with basic principles. The *Fundamentals of Soil Science* is, therefore, equally well suited to a broader audience in agronomy, environment, and sustainable development. The Editorial Committee includes Drs. N.N. Goswami (Chairman), R.K. Rattan, G. Dev, G. Narayanasamy, D.K. Das, S.K. Sanyal, D.K. Pal, and D.N.L. Rao. The 29 chapters have been written by 69 eminent Indian soil scientists. I have met many of them at scientific meetings in Canada, India, USA, and other countries. The Indian Society of Soil Sci-

ence is to be complimented for this excellent publication. Price: US \$100 (including airmail charges and handling). Order to: Dr. R.K. Rattan, Secretary, Indian Society of Soil Science, First Floor, National Societies Block, National Agricultural Science Centre Complex, Dev Prakash Sastri Marg, Pusa, New Delhi - 110 012, India. Phone 91-11-25841991; Fax 91-11-25841529. E-mail: [iss1934@yahoo.com](mailto:iss1934@yahoo.com)  
[iss.secretary@gmail.com](mailto:iss.secretary@gmail.com)  
Web page [www.iss-india.org](http://www.iss-india.org)  
*Reviewed by Yash P. Kalra, retired Soil Chemist, Edmonton, Alberta, Canada*

**Dictionnaire encyclopédique de science du Sol, Clément Mathieu et Jean Lozet.** Editions TEC & DOC, Lavoisier, Londres-Paris-New York. 2011, 733 p. ISBN 978-2-7430-1319-6. Price: 149,00 EUR. Editions Lavoisier, 14, rue de Provigny, 94236 Cachan cedex. A dictionary is a record of generally accepted meanings, which words have acquired at the time of publication. It can also be a book of alphabetically listed words in a language with their equivalent in another language. This edition 'meets both purposes in the field of soil science and related disciplines including soil classification, soil formation, land use, soil fertility, soil conservation, mineralogy and geomorphology. It lists words in alphabetical order with definitions in French, the equivalent word in English and the etymology of terms derived from roots in classical languages. An English-French index constitutes a real Dictionary in Both languages. With reference to 'Accepted meanings which words have acquired at the time of publication' it is obvious that updating is regularly required, especially in the domain of soil science, which evolved at a fast rate since the 1950's. In 1954 Lozet published his 'Dictionnaire de Pédologie' of 800 words. In 1986 Lozet and Mathieu prepared their first edition of their 'Dictionnaire de Science du Sol' covering 2400 words. The success of this publication led to a second edition in 1990, a 3<sup>rd</sup> edition in 1997, a 4<sup>th</sup> edition in 2002 and the present encyclopedic dictionary spanning more than 5000 words, reflecting the evolution of soil science, the diversification of specializations, the development of different soil classification systems and the generation of new terminologies. This dictionary clearly has an added encyclopedic character. The explanation of words reaches often beyond a mere definition: concepts are elaborated upon, cross-references are made to related topics, bibliography for further reading is given, illustrations with figures and photographs are inserted. Also the most important



methods and instruments (e.g. calcimeter, tensiometer, polarizing microscope) are explained and often illustrated with a scheme or a picture. Most useful are the many tables in the text comparing different systems of units, such as seven systems of grain size distribution used in soil science, seven types of 'standards' of sieves, the international units and the old units and their conversion factors. A biography of 120 late soil scientists of international renown is provided in a special chapter. Annexes are devoted to tabular overviews of French, German, Russian, USA, FAO and WRB (World Reference Base) soil classification systems, including tables with different horizon designations and a literature list. It is to be noted that the 2<sup>nd</sup> edition has been translated in English and in Russian. This dictionary should enhance international relations and hopefully contribute to overcome the language barrier, which still constrains the universal impact of soil science. The publishers have produced a highly finished book. Its attractive layout and clarity makes it easy to read and to use. It really matches the aim of a quick reference dictionary with a more in-depth approach to terms, all in one book. As all previous editions of the 'Dictionnaire de science du Sol' have been sold out, it is obvious that publication of this 'Encyclopedic Dictionary' answers a real need not only by the world's community of soil scientists but also by an audience far beyond. This masterpiece of a handy reference book should be kept within reach of all those who are directly or indirectly dealing with soils in their job. The agronomist, the forester or the biologist will find useful background to better understand the less visible underground part of the subjects they are dealing with. For scholars but also for their teachers this encyclopedic dictionary will be a highly valued ready reference which will provide in-depth background to the lectures. Last but not least researchers will be inspired by the deep reflection on a myriad of topics to fuel the discussion in their publications. The authors should be congratulated for this great piece of scientific achievement which certainly will remain a major milestone in soil science for long.

*Jozef (Seppe) Deckers*  
*Department of Earth and Environmental Science*  
*K.U.Leuven University, Belgium*



# IUSS Honorary members

Year	Member	Country	Year	Member	Country
1924	L. Cayeux †	France	1990	G. Aubert †	France
	K. Glinka †	USSR		E.G. Hallsworth †	Australia
	Jos. Kopecky †	Czechoslovakia		J.S. Kanwar	India
	E. Ramann †	Germany		P. Schachtschabel †	Germany
	Sir John Russell †	UK		R.W. Simonson †	USA
1927	S. Winogradski †	USSR	1998	I. Szabolcs †	Hungary
	P. Treitz †	Hungary		G.H. Bolt	Netherlands
1935	E.A. Mitscherlich †	Germany	R. Dudal	Belgium	
	A. d'Sigmond †	Hungary	K.H. Hartge †	Germany	
	J. Stoklasa †	Czechoslovakia	M. Kutilek	Czech Rep.	
1950	G. Wiegner †	Switzerland	J. Quirk	Australia	
	A. Demolon †	France	W.G. Sombroek †	Netherlands	
	D.J. Hissink †	Netherlands	K. Wada	Japan	
1954	W.P. Kelley †	USA	D.H. Yaalon	Israel	
	S. Mattson †	Sweden	S.V. Zonn †	Russia	
1956	E. Truog †	USA	2002	R.W. Arnold	USA
	G. Bertrand †	France		G.V. Dobrovolsky	Russia
1960	E.C.J. Mohr †	Netherlands	W. Gardner †	USA	
	F.A. Bear †	USA	H.M. Hamdi †	Egypt	
1964	J.A. Prescott †	Australia	L.A.L. Sarmiento	Colombia	
1968	F. Hardy †	UK	F. Mancini	Italy	
	W.L. Kubiena †	Germany	B.S. Nosko	Ukraine	
	L.A. Richards †	USA	R. Rosell	Argentina	
	A.A. Rode †	USSR	A. Ruellan	France	
	R. Bradfield †	USA	A. Tanaka	Japan	
1974	G.V. Jacks †	UK	2006	P.B.H. Tinker	UK
	Ch.E. Kellogg †	USA		W.E.H. Blum	Austria
	M.K. Kononova †	USSR		H-P. Blume	Germany
	A. Oudin †	France		J. Bouma	Netherlands
	F. Scheffer †	Germany		S-J. Cho	South Korea
1978	G. Barbier †	France	J. Glinski	Poland	
	V. Ignatieff †	Canada	M.G.H. Jamagne	France	
	Y. Ishizuka †	Japan	D.R. Nielsen	USA	
	L. Krolkowski †	Poland	J.H.V. van Baren †	Netherlands	
	L. Vettori †	Brazil	L.P. Wilding	USA	
1982	Ph. Duchaufour †	France	2010	C. Feller	France
	W. Flaig †	Germany		K. Kumazawa	Japan
	V. Kovda †	USSR		K. Kyuma	Japan
	E. Mueckenhausen †	Germany		J. Ryan	Syria
	E.W. Russell †	UK		B.A. Stewart	USA
1986	H. Jenny †	USA	V. Targulian	Russia	
	D. Kirkham †	USA	G. Varallyay	Hungary	
	S.K. Mukherjee †	India	J.S.P. Yadav †	India	
	R. Tavernier †	Belgium			

