

# BULLETIN

OF THE INTERNATIONAL SOCIETY  
OF SOIL SCIENCE

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# BULLETIN

DE L'ASSOCIATION INTERNATIONALE  
DE LA SCIENCE DU SOL

•

# MITTEILUNGEN

DER INTERNATIONALEN BODENKUNDLICHEN  
GESELLSCHAFT

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**INTERNATIONAL SOCIETY OF SOIL SCIENCE**  
**ASSOCIATION INTERNATIONALE DE LA SCIENCE DU SOL**  
**INTERNATIONALE BODENKUNDLICHE GESELLSCHAFT**

Office/Bureau: c/o Royal Tropical Institute, 63 Mauritskade, Amsterdam, Netherlands.

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**COUNCIL/CONSEIL/BEIRAT:**

**Executive Committee/Comité Exécutif/Verwaltungsausschuss:**

- President** : E. G. Hallsworth, C.S.I.R.O. Division of Soils, Private Bag No. 1, Glen Osmond, South Australia.
- Vice-President** : J. P. Quirk, Dept. of Soil Science and Plant Nutrition, University of Western Australia, Nedlands, W. Australia.
- Past-President** : N. C. Cernescu, Comité Géologique, Soseaue Kiseleff 2, Bucharest, Rumania.
- Secretary-General**: F. A. van Baren, c/o Royal Tropical Institute, 63 Mauritskade, Amsterdam, Netherlands.

**Honorary Members/Membres Honoraires/Ehrenmitglieder:**

- Sir John E. Russell, Woodstock House, Woodstock, Oxford, England.
- Prof. Dr W. P. Kelley, University of California, 120 Hilgard Hall, Berkeley 4, Cal., U.S.A. (†)
- Prof. Dr Sante Mattson, Båstad, Sweden.
- Prof. Dr Emil Truog, University of Wisconsin, Madison 6, Wisc., U.S.A.
- Prof. Dr. E. C. J. Mohr, 38 Oude Engweg, Hilversum, Netherlands.
- Dr Firman E. Bear, Rutgers University, New Brunswick, N.J., U.S.A.
- Prof. J. A. Prescott, 82 Cross Road, Myrtle Bank, South Australia.

**Commissions/Commissions/Kommissionen:**

- I — SOIL PHYSICS.**  
Chairman: G. H. Bolt, Laboratorium Landbouwscheikunde, Prof. Ritzemabosweg, Wageningen, Netherlands.
- II — SOIL CHEMISTRY.**  
Chairman: J. M. M. J. Fripiat, Institut Agronomique, Avenue Cardinal Mercier, 92 Héverlé-Louvain, Belgique.
- III — SOIL BIOLOGY.**  
Chairman: J. Macura, Institute of Microbiology, Budájevická 1083, Praha 4, Czechoslovakia.
- IV — SOIL FERTILITY AND PLANT NUTRITION.**  
Chairman: Y. Ishizuka, Hokkaido University, Department of Soil Fertility and Plant Nutrition, Sapporo, Japan.
- V — SOIL GENESIS, CLASSIFICATION AND CARTOGRAPHY.**  
Chairman: V. A. Kovda, Academy of Sciences, Moscow, U.S.S.R.
- VI — SOIL TECHNOLOGY.**  
Chairman: I. D. Stalcu, Institut Central de Recherches Agricoles, Bd. Marasti 61, Bucarest, Roumanie.
- VII — SOIL MINERALOGY.**  
Chairman: B. D. Mitchell, The Macaulay Institute for Soil Research, Department of Pedology, Craigiebuckler, Aberdeen, Scotland.

To the Secretary-General of the I.S.S.S.

Royal Tropical Institute

63 Mauritskade

AMSTERDAM, NETHERLANDS

# INTERNATIONAL SOCIETY OF SOIL SCIENCE

(see Bull. 30 pages 2, 3 or 4)

The undersigned (please print).....

Address .....

.....  
agrees with the text of the new Rules\*)

suggests alternations as per annexed letter\*)

Date:.....

Signature:.....

\*) delete what not applies.



BULLETIN  
OF THE INTERNATIONAL SOCIETY OF SOIL SCIENCE

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DE L'ASSOCIATION INTERNATIONALE DE LA SCIENCE DU SOL

MITTEILUNGEN  
DER INTERNATIONALEN BODENKUNDLICHEN GESELLSCHAFT

No. 30

1967



**Professor Dr. C. N. CERNESCU †**

On April 28th, 1967 the very sad news was communicated from Bucharest, that our most amiable friend and colleague, President of the so successful 8th International Congress of Soil Science, suddenly died. A more complete obituary will be devoted to our Past-President in the next number of the Bulletin. For the present we have to limit ourselves to reproducing a photograph taken at the Bucharest Congress.

Our deepest feelings of sympathy go out to Professor Cernescu's family and to the Rumanian Society of Soil Science.

F. A. VAN BAREN

## NEWS OF THE SOCIETY

### The new Rules

At the second meeting of the Council, held at Bucharest on the 8th September, 1964, at the occasion of the 8th International Congress of Soil Science, it was decided that the Rules of the Society, which in their present form date from 1950, be revised to meet to-days requirements.

For that purpose a small Committee was nominated, consisting of E. Mückenhausen (Germany), R. Tavernier (Belgium) and E. W. Russell (U.K.), the two latter members having served on the Committee which drafted the present Rules. The Secretary General was appointed secretary.

As a result of the deliberations of the Committee, a revised set of rules was prepared.

A copy of the new draft is now presented as an annexe to this Bulletin to all the members for studying and comment. Any proposals for additional changes must be sent to the Secretary-General not later than February 1st, 1968. They will be considered and discussed at the first Council meeting during the 9th International Congress of Soil Science at Adelaide, and subsequently the new Rules will be presented to the General Meeting at that same occasion for adoption.

In case of full agreement, please send the attached voting slip to the Office of the Secretary-General before August 1st, 1968. They will be considered as votes cast at the Adelaide meeting.

### 9th International Congress of Soil Science, Adelaide, Australia August 1968

#### The programme (errata)

1. To the list of the Officers of the Society, the name of the Secretary-General: F. A. van Baren, should be added.
2. From the list of Honorary Members, the name of the late Professor Gabriel Bertrand (France) should be deleted.
3. Commission VII (m): "Clay mineral structures" should be new theme in major heading.

#### 1. *Tours in Australia and New Zealand*

The following tours were listed in the "Notice of Intent" accompanying the 9th Congress brochure sent to members of the Society.

- Tour No. 1* Darwin to Adelaide (Pre-Congress Tour)  
Adelaide to Darwin (Post-Congress Tour)
- Tour No. 2* South Eastern Queensland and Northern  
New South Wales (Pre-Congress Tour)  
(Post-Congress Tour)
- Tour No. 3* Canberra to Adelaide (Pre-Congress Tour)  
Adelaide to Canberra (Post-Congress Tour)
- Tour No. 4* Melbourne to Adelaide (Pre-Congress Tour)  
Adelaide to Melbourne (Post-Congress Tour)
- Tour No. 5* Western Australian Tour (Pre-Congress Tour)  
(Post-Congress Tour)
- Tour No. 6* New Zealand, Northern Tour (Pre-Congress Tour)  
(Post-Congress Tour)
- Tour No. 7* New Zealand, Southern Tour (Pre-Congress Tour)  
(Post-Congress Tour)
- Tour No. 8* North Queensland (Pre-Congress Tour)  
(Post-Congress Tour)

Detailed plans will be made for Tour No. 8 only if there is sufficient interest in holding a tour in North Queensland. This provisional tour was listed as No. 7 in the earlier "Notice of Intent" that accompanied Bulletin No. 29. The two New Zealand tours, which now are No. 6 (Northern) and No. 7 (Southern), were grouped together as No. 6 on the earlier list.

**The dates for the New Zealand tours have been altered and are now: Pre-Congress Tours: July 19 to July 26, 1968 and Post-Congress Tours: August 27 to September 3, 1968.**

### 2. Travel arrangements for non-participants

Air fares at the reduced group rate will be available to non-participants (e.g. wives who accompany participants) under the terms of our agreement with Qantas Airways, provided they are registered and have paid their subscription of \$A10 (associate fee).

### 3. Exhibition of maps and models

An exhibition will be staged during the Congress. While this is primarily for the benefit of Congress members, it is also expected that it will be open to the general public and contain some material of interest to them.

For the first time a large collection of monoliths of Australian soil profiles will be grouped together. Soils inspected on Congress tours will be represented in this collection. Other exhibits will include maps, models and sections dealing with the major and minor themes of the seven Commissions of the Congress. Material on related subjects will also be included.

## NOUVELLES DE L'ASSOCIATION

### Le nouveau règlement

A la seconde réunion du Conseil qui s'est tenue à Bucarest le 8 septembre 1964, lors du 8e Congrès International de la Science du Sol, il a été décidé que le Règlement de la Société, qui dans sa forme actuelle date de 1950, serait révisé pour l'adapter aux exigences actuelles.

A cette fin, un Comité restreint a été formé. Il comprend MM. E. Mückenhausen (Allemagne), R. Tavernier (Belgique) et E. W. Russell (Royaume-Uni). Ces deux derniers membres ont fait partie du Comité qui a établi le règlement actuel. Le Secrétaire-Général a été désigné comme secrétaire.

A la suite des délibérations du Comité, un projet révisé du Règlement a été préparé.

Une copie de ce nouveau projet est annexée au présent Bulletin afin que les membres puissent en avoir connaissance et puissent le commenter. Toutes les propositions peuvent être envoyées au Secrétaire-Général. Elles doivent lui parvenir avant le premier février 1968 au plus tard. Elles seront prises en considération et discutées lors de la première réunion du Conseil qui se tiendra à Adélaïde au cours du 9e Congrès International de la Science du Sol. A la suite de cette réunion, le nouveau Règlement sera présenté à l'Assemblée Générale pour adoption.

En cas d'accord, nous vous prions d'envoyer le bon de vote attaché au Bulletin au bureau du Secrétaire-Général avant le 1er août 1968. Ce bon sera considéré comme un bulletin de vote à la réunion d'Adélaïde.

### 9e Congrès International de la Science du Sol, Adélaïde, Australie Août 1968

#### Le programme (errata)

1. Il faut ajouter à la liste des dirigeants de la Société le nom du Secrétaire-Général: F. A. van Baren.
2. Il faut supprimer de la liste des Membres Honoraires le nom du Professeur Gabriel Bertrand décédé.
3. Commission VII (m): „Structures des minéraux argileux" doit être nouvel thème en majuscules.

#### 1. Excursions en Australie et Nouvelle Zélande

Les excursions suivantes ont été mentionnées dans la „Notice of Intent" accompagnant la brochure du 9e Congrès envoyée aux membres de la Société.

Excursion no. 1 Darwin - Adélaïde (Excursion avant Congrès)  
Adélaïde - Darwin (Excursion après Congrès)

Excursion no. 2 Queensland du S-E et Nouvelle Galle du Sud  
septentrionale (Excursion avant Congrès)  
(Excursion après Congrès)

Excursion no. 3 Canberra - Adélaïde (Excursion avant Congrès)  
Adélaïde - Canberra (Excursion après Congrès)

- Excursion no. 4* Melbourne - Adélaide (Excursion avant Congrès)  
Adélaide - Melbourne (Excursion après Congrès)
- Excursion no. 5* Australie occidentale (Excursion avant Congrès)  
(Excursion après Congrès)
- Excursion no. 6* Nouvelle Zélande Nord (Excursion avant Congrès)  
(Excursion après Congrès)
- Excursion no. 7* Nouvelle Zélande Sud (Excursion avant Congrès)  
(Excursion après Congrès)
- Excursion no. 8* Queensland du Nord (Excursion avant Congrès)  
(Excursion après Congrès)

Des explications détaillées ne seront données pour l'excursion no. 8 que si le Nord du Queensland suscite suffisamment d'intérêt. Cette excursion était mentionnée sous le no. 7 dans la précédente „Notice of Intent” qui accompagnait le no. 29 du Bulletin. Les deux excursions de Nouvelle Zélande mentionnées actuellement sous le no. 6 (excursion nord) et 7 (excursion sud) étaient précédemment groupées sous le no. 6.

**Les dates des excursions de Nouvelle Zélande ont été changées et sont fixées comme suit: Excursions avant Congrès: 19 Juillet jusqu'au 26 Juillet 1968 et Excursions après Congrès: 27 Août jusqu'au 3 Septembre 1968.**

### *2. Dispositions de voyage pour les non-participants*

Les prix d'avion à taux réduit pour les groupes seront accordés aux non-participants (par exemple, aux épouses accompagnant les Congressistes) aux conditions données par les Qantas Airways pour autant que ces personnes soient inscrites et aient payé leur souscription de \$ A 10 (cotisation d'associé).

### *3. Exposition de cartes et de modèles*

Une exposition sera organisée pendant le Congrès. Bien qu'elle soit prévue principalement pour les membres congressistes, il est cependant prévu qu'elle pourra être ouverte au public et qu'elle pourra par conséquent intéresser les non-avertis.

En premier lieu, une importante collection de monolithes de sols australiens sera rassemblée. Les sols qui seront examinés au cours des excursions figureront dans cette collection. A cette exposition, il y aura des cartes, des modèles et des coupes qui se rapporteront aux thèmes généraux et mineurs des sept commissions du Congrès. Du matériel et des sujets appropriés peuvent également être exposés.

## **NEUES AUS DER GESELLSCHAFT**

### **Die neue Satzung**

Auf der zweiten Sitzung des Beirats anlässlich der 8. Internationalen Bodenkundlichen Tagung am 8. September 1964 in Bukarest wurde entschieden, dass die Satzung der Gesellschaft, die in ihrer gegenwärtigen Form von 1950 stammt, überprüft werden soll, damit sie den heutigen Erfordernissen gerecht wird.

Zu diesem Zwecke wurde ein kleines Komitee benannt, bestehend aus E. Mückenhausen (Deutschland), R. Tavernier (Belgien) und E. W. Russell (Grossbritannien); die beiden letztgenannten haben dem Komitee angehört, das die derzeitige Satzung ausgearbeitet hat. Der Generalsekretär wurde als Sekretär benannt.

Als Ergebnis der Beratungen des Komitees wurde eine überarbeitete Satzung vorbereitet.

Eine Kopie des neuen Entwurfs wird jetzt als Anlage zu diesem Mitteilungsblatt an alle Mitglieder zum Studium und zur Kommentierung überreicht. Vorschläge für zusätzliche Änderungen müssen bis spätestens 1. Februar 1968 an den Generalsekretär gesendet werden. Sie werden auf der ersten Beiratssitzung während der 9. Internationalen Bodenkundlichen Tagung in Adelaide begütachtet und diskutiert werden, und anschliessend wird die neue Satzung der Generalversammlung auf der Tagung zur Zustimmung vorgelegt werden.

Im Falle voller Zustimmung senden Sie bitte den anhängenden Stimmzettel vor dem 1. August 1968 an das Generalsekretariat. Er wird als Stimme betrachtet werden, die bei der Tagung in Adelaide abgegeben werden soll.



**9. Internationaler Bodenkundlicher Kongress in Adelaide, Australien  
August 1968**

**Das Programm (Errata)**

1. Hinzufügen zu der Liste der Mitglieder des Vorstandes den Namen des General-Sekretärs: F. A. VAN BAREN.
2. Abführen von der Liste der Ehrenmitglieder den Namen des verstorbenen Professor Gabriel Bertrand.
3. Kommission VII (m): „Mineralstrukturen im Ton“ ist als neues Thema gross zu schreiben.

**1. Exkursionen in Australien und Neuseeland**

Die folgenden Exkursionen waren in der „Notiz über die Vorhaben“ aufgeführt, die den Mitgliedern der Gesellschaft in Verbindung mit der Broschüre vom 9. Kongress zugesandt wurde.

- Exkursion Nr. 1* Darwin - Adelaide (Vor-Kongress-Exkursion)  
Adelaide - Darwin (Nach-Kongress-Exkursion)
- Exkursion Nr. 2* Südost-Queensland und Nord-Neusüdwales  
(Vor-Kongress-Exkursion)  
(Nach-Kongress-Exkursion)
- Exkursion Nr. 3* Canberra - Adelaide (Vor-Kongress-Exkursion)  
Adelaide - Canberra (Nach-Kongress-Exkursion)
- Exkursion Nr. 4* Melbourne - Adelaide (Vor-Kongress-Exkursion)  
Adelaide - Melbourne (Nach-Kongress-Exkursion)
- Exkursion Nr. 5* West-Australien-Exkursion (Vor-Kongress-Exkursion)  
(Nach-Kongress-Exkursion)
- Exkursion Nr. 6* Neuseeland, Nord-Exkursion (Vor-Kongress-Exkursion)  
(Nach-Kongress-Exkursion)
- Exkursion Nr. 7* Neuseeland, Süd-Exkursion (Vor-Kongress-Exkursion)  
(Nach-Kongress-Exkursion)
- Exkursion Nr. 8* Nord-Queensland (Vor-Kongress-Exkursion)  
(Nach-Kongress-Exkursion)

Genauere Pläne werden für die Exkursion Nr. 8 nur gemacht, wenn ein ausreichendes Interesse an einer Exkursion in Nord-Queensland besteht. Diese vorläufige Exkursion war aufgeführt als Nr. 7 in der früheren „Notiz über die Vorhaben“, die in dem Mitteilungsblatt Nr. 29 enthalten war. Die zwei Neuseeland-Exkursionen, die jetzt Nr. 6 (Nord) und Nr. 7 (Süd) sind, waren in der älteren Liste zusammen gruppiert als Nr. 6.

**Die Daten für die Neuseeland-Exkursionen sind abgeändert und lauten jetzt: Vor-Kongress-Exkursionen: 19. Juli bis 26. Juli 1968 und Nach-Kongress-Exkursionen: 27. August bis 3. September 1968.**

**2. Reise-Vorkehrungen für Nichtteilnehmer**

Flugkarten zum verbilligten Gruppenpreis werden für Nichtteilnehmer (z.B. Ehefrauen, die Teilnehmer begleiten) entsprechend unserer Übereinkunft mit der „Quantas Airways“ erhältlich sein, vorausgesetzt diese sind registriert und haben ihre Einschreibung von \$A 10 bezahlt (Teilnehmergebühr).

**3. Ausstellung von Karten und Modellen**

Eine Ausstellung wird während des Kongresses gezeigt. Während diese in erster Linie für die Kongressmitglieder stattfinden wird, ist auch daran gedacht, sie dem allgemeinen Publikum zugänglich zu machen, und sie wird hierfür einiges Material enthalten, das für dieses von Interesse ist.

Zunächst wird eine grosse Sammlung von Monolithen australischer Bodenprofile zusammengestellt werden. Die auf den Kongress-Exkursionen besichtigten Böden werden in dieser Sammlung dargestellt werden. Andere Ausstellungsstücke werden sein: Karten, Modelle und Gegenstände, die kleinere und grössere Themen der sieben Kommissionen des Kongresses behandeln. Material über verwandte Gebiete wird auch eingeschlossen werden.

**NEWS OF THE COMMISSIONS  
NOUVELLES DES COMMISSIONS  
NEUES AUS DEN KOMMISSIONEN**

**Commission I - Soil Physics**

The Middle- and East-European book on working methods in soil structure (see Bulletin 29, p. 23) will be available in summer or autumn 1967.

It is published by VEB-Landwirtschaftsverlag, Berlin, and should be ordered through normal booksellers. The price is DMN. 40.

**Commission V**

**Conference on Mediterranean Soils  
Study Tour through Southern Portugal**

Owing to the extent of the text which had to be prepared for Bulletin No. 29, a report on the very efficiently guided and highly interesting tour through Portugal did not get proper attention. It is a pleasure to allow this review now the place to which it is entitled.

As a continuation of the Spanish tour, a study tour through Southern Portugal took place between September 24th and September 28th.

Eighty participants travelled across the Provinces of Alentejo, Algarve and Estremadura and examined 17 profiles of the following soils: Brown Mediterranean Soils (from calcareous and non-calcareous rocks), Red-Yellow Mediterranean Soils (from calcareous and non-calcareous rocks), Brown Calcareous Soils, Red Calcareous Soils, Black Vertisols, Dark-Reddish Brown Vertisols, Planosols, Humic Litholic Soils and Podzols.

At all sites there were interesting discussions under the guidance of Dr. J. Carvalho Cardoso, Director of Soil Survey of Portugal, and of some of his collaborators. Correlation between Portuguese soils and similar soils of other countries was always made.

The region crossed by the participants is already completely surveyed, as the soil survey of Portugal, made at a scale of 1 : 25 000 and published at a scale of 1 : 50 000, covers now about 3,500,000 hectares. Thus, it was possible to see, at each profile site, the respective sheets of the Soils Map of Portugal and the Land Capability Map, what permitted to have detailed information



*Studying a profile of a Dark Reddish Brown Vertisol derived from basic metamorphic rocks close to Beja.*

*(Profile no. 5 of the guide book)*

about the distribution of soils in surrounding areas.

Participants also had the opportunity of visiting an Erosion Experimental Center, located on a representative area of Red-Yellow Mediterranean Soils derived from schists, where basic data about runoff and erosion and the influence of several crop rotations are being collected.

During the trip some touristic places were visited and some entertainments were offered to the participants. At Beja and Armação de Pera dinner-parties with exhibition of folkloric groups entertained the participants. At Sagres, in a very old Fortress, they saw an interesting colour film about "Henry, the Navigator", the famous conductor of Portuguese Discoveries.

In Lisbon, the Mayor of the City received the participants and offered them a cocktail-party. The closure dinner, presided over and offered by the Secretary of State for Agriculture, took place in a typical restaurant of Lisbon.



*Studying a profile of a Red-Yellow Mediterranean soil derived from shales close to Beja.*

*(Profile no. 6 of the guide book)*

#### **Sub-Commission on Salt Affected Soils**

The first meeting of the Board of the Sub-Commission on Salt Affected Soils (see Bulletin 29, page 32) will be held at Budapest from 2—6 October 1967.

The programme includes two days of discussion on the future plans of meetings and conferences, having as the main subject investigation and reclamation of salt affected soils. Also the plans for the preparation of a first draft of a World Map of Salt Affected Soils will be studied.

The meeting will be followed by two days of excursion.

#### **Commission I - Physique du Sol**

L'ouvrage du Groupe de Travail de l'Europe Centrale et Orientale (voir Bulletin 29, p. 23) sur les méthodes de recherche dans la structure du sol sortira de presse en été ou automne 1967.

Le volume est publié par VEB-Landwirtschaftsverlag, Berlin, et doit être commandé chez les librairies normales. Le prix est de DMN. 40.

#### **Commission V**

##### **Conférence sur les sols méditerranéens**

##### **Excursion d'étude à travers le Portugal méridional**

En raison de la longueur du texte qui avait dû être préparé pour le Bulletin no. 29, un rapport de cette excursion très intéressante et conduite de main de maître à travers le Portugal n'a pas retenu toute l'attention souhaitée. Nous avons maintenant le plaisir d'accorder à ce rapport la place à laquelle il a droit.

Pour parachever l'excursion d'Espagne, une excursion d'étude à travers le Portugal méridional a eu lieu du 24 au 28 septembre.

80 participants ont voyagé à travers les provinces d'Alentejo, Algarve et Estramadura et ont examiné 17 profils de sols suivants: sols bruns méditerranéens (dérivés de matériaux calcaires et non calcaires), sols rouge jaune méditerranéens (dérivés de matériaux calcaires et non calcaires), sols bruns calcaires, sols rouges calcaires, vertisols noirs, vertisols brun rougeâtre foncé, planosols, sols lithologiques humiques et podzols.

A chaque endroit, il y eut d'intéressantes discussions sous la conduite du Dr. J. Carvalho Cardoso, Directeur de la cartographie des sols du Portugal et de certains de ses collaborateurs. On a toujours pu établir une corrélation entre les sols portugais et des sols semblables d'autres régions.

La région parcourue par les participants est actuellement cartographiée complètement, comme cartographie des sols du Portugal, à l'échelle du 1 : 25.000e et publiée à l'échelle du 1 : 50.000e. Elle comporte environ 3.500.000 ha. Il fut donc possible de voir, à chaque profil, les feuilles respectives de la carte des sols du Portugal et de la carte de capacité, ce qui permit d'avoir des informations détaillées sur la distribution des sols dans les zones avoisinantes.

Les participants ont également eu la possibilité de visiter un centre expérimental de lutte antiérosive, situé dans une zone représentative des sols rouge jaune méditerranéens dérivés de schistes. Des données de base concernant le ruissellement et l'érosion de même que l'influence de diverses rotations culturales ont été données.

Au cours du voyage, certains sites touristiques ont été visités et des distractions ont été offertes aux participants. A Beja et Armação de Pera des „dinner-parties" avec cortèges de groupes folkloriques ont distrait les participants. A Sagres, dans une forteresse très ancienne, ils ont pu assister à la projection d'un intéressant film en couleur sur „Henry, le Navigateur", le promoteur des découvertes portugaises.

A Lisbonne, le bourgmestre de la cité a reçu les participants et leur a offert une cocktail-party. Le repas de clôture a été offert par le Secrétaire d'Etat à l'Agriculture, dans un restaurant typique de Lisbonne.

### **Commission V**

#### **Sous-commission des sols salés**

La première réunion du Bureau de la sous-commission des sols salés (voir Bulletin 29, page 32) se tiendra à Budapest du 2 au 6 octobre 1967.

Le programme comprend deux jours de discussions sur les projets de réunions et conférences avec comme sujet principal la recherche et les besoins des sols salés. Le plan de préparation du premier projet de carte mondiale des sols salés sera également étudié.

La réunion sera suivie de deux jours d'excursions.

### **Kommission I - Bodenphysik**

Die Arbeit der Mittel- und Ost-Europäische Arbeitsgruppe (siehe Mitt. 29, S. 24) über die Methoden der Bodenstrukturbestimmung wird im Sommer oder Herbst 1967 veröffentlicht.

Der Herausgeber ist der VEB-Landwirtschaftsverlag zu Berlin. Das Buch ist zu beziehen im Buchhandel und der Preis ist DMN. 40.

### **Konferenz über Mediterranböden Studienreise durch Süd-Portugal**

Als eine Fortsetzung der Spanien-Exkursion, fand zwischen dem 24. und 28. September eine Studienexkursion durch Süd-Portugal statt.

Achtzig Teilnehmer fuhren durch die Provinzen von Alentejo, Algarve und Estremadura und besichtigten 17 Profile der folgenden Böden: braune Mediterranböden (aus kalkhaltigen und kalkfreien Gesteinen), rotgelbe Mediterranböden (aus kalkhaltigen und kalkfreien Gesteinen), braune kalkhaltige Böden, rote kalkhaltige Böden, schwarze Vertisole, dunkel-rötlich-braune Vertisole, Planosole, „Humic Litholic Soils" und Podsole.



An allen Orten gab es interessante Diskussionen unter der Leitung von Dr. J. Carvalho Cardoso, Direktor der Bodenkartierung von Portugal, und einigen seiner Mitarbeiter. Vergleiche zwischen portugiesischen Böden und ähnlichen Böden anderer Länder wurden überall vorgenommen.

Das von den Teilnehmern durchfahrene Gebiet ist bereits vollständig kartiert, da der Bodenkartierungsdienst von Portugal, durchgeführt im Massstab 1 : 25 000 und veröffentlicht im Massstab 1 : 50 000, jetzt ungefähr 3 500 000 ha fertig kartiert hat. Somit war es möglich, bei jedem Profil die entsprechenden Blätter der Bodenkarte von Portugal und der Bodenleistungsfähigkeitskarte einzusehen, was erlaubte, eine detaillierte Information über die Verbreitung der Böden in den umgebenden Gebieten zu bekommen.

Die Teilnehmer hatten auch Gelegenheit zum Besuch eines Erosions-Versuchszentrums, das sich auf einem repräsentativen Gelände mit rotgelben Mediterrangeböden aus Schiefer befindet, wo Grunddaten über den Oberflächenabfluss, die Erosion und den Einfluss von verschiedenen Fruchtfolgen gesammelt werden.

Während der Fahrt wurden einige Touristenorte besucht, und den Teilnehmern wurde einiges an Unterhaltung geboten. In Beja und Armacão de Pera unterhielten Tischgesellschaften mit Darbietungen von Volkskunstgruppen die Teilnehmer. In Sagres, einer sehr alten Festung, sahen sie einen interessanten Farbfilm über „Heinrich dem Seefahrer“, den berühmten Führer der portugiesischen Entdeckungen.

In Lissabon empfing der Bürgermeister der Stadt die Teilnehmer und lud sie zu einer Cocktail-Party ein. Das Abschluss-Festessen, das vom Staatssekretariat für Landwirtschaft gegeben wurde, fand in einem typischen Restaurant von Lissabon statt.

#### **Kommission V** **Unter-Kommission für salzbeeinflusste Böden**

Die erste Sitzung des Vorstandes der Unter-Kommission für salzbeeinflusste Böden (siehe Mitteilungsblatt 29, S. 32) wird vom 2.—6. Oktober 1967 in Budapest stattfinden.

Das Programm sieht zwei Tage für Diskussion über die zukünftigen Pläne von Sitzungen und Konferenzen vor, die als Hauptthema die Erforschung und Verbesserung salzbeeinflusster Böden haben. Auch die Pläne zur Vorbereitung eines ersten Entwurfes einer Weltkarte der salzbeeinflussten Böden werden studiert werden.

Der Sitzung werden zwei Tage mit Exkursionen folgen.

**NEWS OF THE NATIONAL SOCIETIES  
NOUVELLES DES SOCIÉTÉS NATIONALES  
NEUES DER GESELLSCHAFTEN IN EINZELNEN LÄNDERN**

**Soil Science Society of Ghana**

At the third annual Conference, held in November 1966, the following members have been elected to serve on the Executive Committee and the Editorial Board of the Soil Science Society of Ghana:

*President:* Dr. D. K. Acquaye, Sen. Lecturer, Faculty of Agric. Univ. of Ghana, Legon, Accra, Ghana.

*Vice-President:* Mr. F. S. Ablorh, Research Officer, Soil Res. Inst., Ghana Academy of Sciences, Private Post Bag, Academy Post Office, Kwadaso-Kumasi, Ghana.

*Secretary:* Mr. H. B. Obeng, Prin. Res. Officer, Soil Res. Inst., Ghana Academy of Sciences, Private Post Bag, Academy Post Office, Kwadaso-Kumasi, Ghana.

*Treasurer:* Mr. A. T. Halm, Res. Officer, Soil Res. Inst., G.A.S., Private Post Bag, Academy Post Office, Kwadaso-Kumasi, Ghana.

*Members:* 1. Mr. R. K. Djokoto, Sen. Tech. Officer, Faculty of Agric. Univ. of Sci. and Tech., Kumasi, Ghana.

2. Mr. E. F. G. Mante, Lecturer, Faculty of Agric. Univ. of Ghana, Legon, Accra, Ghana.

3. Mr. A. A. Opoku, Research Officer, Univ. College of Ghana, Agricul. Res. Station, Box 46, Kade, Ghana.

*Editorial Board:*

*Soil Chemistry:* Dr. D. K. Acquaye, Chairman

*Soil Survey and Classification:* Mr. H. B. Obeng, Member

*Soil Physics:* Mr. E. F. G. Mante, Member

*Soil Fertility and Plant Nutrition:* Dr. C. S. Ofori, Member

*Soil Conservation:* Mr. D. M. Osafo, Member

*Agronomy:* Mr. A. A. Opoku, Member

The Society hopes to publish its first journal next year. It will be entitled "Ghana Journal of Soil Science". Proceedings of the general annual meetings will also be published shortly.

**MISCELLANEOUS NEWS**  
**INFORMATIONS DIVERSES**  
**VERMISCHTE MITTEILUNGEN**

**International Clay Conference**

The Association Internationale pour l'Etude des Argiles (A.I.P.E.A.) held its second International Clay Conference in Jerusalem, Israel, June 20 to 24, 1966. About 120 members from 120 countries took part, including 20 who could be classified as soil scientists. Close to fifty papers were presented during the 8 sessions, one of which was devoted entirely to the origin and distribution of clays in soils. Other sessions also included papers of interest to soil scientists. They can be studied in the Proceedings, which were published by I.P.S.T. Jerusalem (Israel Program for Scientific Translations) and distributed to participants already prior to the conference. Volume II of the Proceedings will be published shortly and will include all the discussions and some additional papers.

The statutes of the A.I.P.E.A. were voted upon during the conference and a new executive committee elected, which includes several soil scientists: Prof. Udo Schwertman, Germany, Secretary General; Dr. R. C. Mackenzie, Great-Britain; Prof. J. J. Fripiat, Belgium; Prof. J. White, Indiana, U.S.A. and Prof. T. Sudo, Japan, members. The next conference will be held in 1969 in Japan.

The association accepts as members both individual scientists and national societies and aims to promote international cooperation in clay research. The significant contribution of soil scientists to clay research is generally acknowledged, and the next conference is likely to take up allophane and amorphous materials as one of its central subjects, which should be of special interest to soil scientists.

D. H. Yaalon

**First Congress on Waterproblems in Rural Areas**

The final session of this Argentine Congress, as announced in Bulletin 28, p. 21, was held in Buenos Aires on November 29 and 30, 1966. The Congress proved its justification by the drafting of no less than 30 resolutions, accentuating the importance of water as a life source for agricultural production, animal husbandry and human life itself. A permanent commission has been set up, primarily to assist in the implementation of the various resolutions, and in the second place to maintain the interest provoked by the Congress. The resolutions deal with subjects of a general character as the promotion of inter-state contacts, the establishing of hydrological institutes, the creation of a National Hydrological Service, etc. Special problems are enumerated under the headings of erosion, surface water and subterranean water. Adherence and support to Unesco's Hydrological Decade is clearly expressed. All in all the Congress contributed to a better appraisal of hydrological resources and their importance for mankind.

**SOMBROEK, W. G., Amazon Soils.**

Centr. Landb. Publ., P.O. Box 4, Wageningen, 1966, pp. 300, tables, fotogr. Appendices: 3 coloured soil maps, 3 geol., geomorph. and veget. cross sect., savannah map. Analytical Data. Dfl. 45.— (\$ 12.50).

This very interesting and rather complete study on the soils of the Amazon region, Brasil, reflects the results of two years of survey as a member of the FAO/SPVEA mission in Belém, substantiated by numerous analytical data. It discusses the soil conditions of the zone of tropical forest transitional to the savannah's of NE and Central Brasil and those of British Guiana. The author first deals with the environmental exogenic factors: climate, geology, geomorphology, including the occurrence of fossil plinthite, and vegetation. As might be expected latosols represent the main soil group, whereas the conspicuous occurrence of plinthite caused the author to devote a special section to plinthitic soils. The classified soils in relation to their geographic distribution, soils and the forest, and the soils and their agricultural vocation get proper attention in separate chapters. The list of references includes a great number of normally difficultly or even non-accessible technical FAO-reports, which adds to the value of this Amazon soils monograph.

**OBREJANU, G. and MAJANU, A.: Pedologie ameleorativa.**

Editura Agro-silvica, Bucuresti, 1966, pp. 264, tables, graphs, litt.

This volume on soil science as applied to soil reclamation is divided into six parts, each dealing with a special aspect of crop production. Part I covers the chemical and physical properties limiting soil fertility as there are: (1) the colloidal complex and soil solution; (2) soil reaction and oxidation-reduction potential, and (3) water and air. Part II contains three chapters on soils with excessive moisture viz. (4) genesis, classification and properties; (5) reclamation, and (6) effects of reclamation on soils and plants. Part III deals with alluvial soils, a subject treated in six chapters: (7) development; (8) processes of soil formation; (9) classification; (10) characteristics of alluvial soils in Rumania; (11) fertility and (12) reclamation and use, and influence of man's activity on their evolution. Part IV discusses saline and alkali soils in five chapters: (13) origine of salts and conditions for development; (14) genesis and classification; (15) characteristics of saline and alkali soils in Rumania; (16) man-made salinization, and (17) reclamation. As the opposite case, acid soils are considered in part V consisting of four chapters viz. (18) genesis and properties; (19) liming; (20) influence of amendment, and (21) improvement of water and air regimes. The volume ends with part VI on sands and sandy soils, also in four chapters: (22) genesis, properties and classification; (23) characteristics of Rumanian sandy soils; (24) reclamation and, finally, chapter 25 dealing with the effects of reclamation of sandy soils.

From this review of contents may be concluded that the authors (including A. Canarache for chapter 3) present a well organized treatise dealing in a very logical sequence with the various aspects of soil reclamation. Knowledge of a roman language and use of the soil science dictionary will be helpful in understanding this highly interesting Rumanian textbook.

**TSCHAPEK, M. C.: El Agua en el Suelo.**

Consejo Superior de Investigaciones Cientificas, Inst. „Jose Maria Albareda” de Edafologia & Biol. Veg., Serrano 117, Madrid, 1966, 184 ill., 80 tables, second revised edition, 600 pesetas.

The author is the Director of the Instituto de Suelos y Agrotecnia in Buenos Aires, Argentina; Doctor of Agronomic Sciences and Candidate of Chemistry Sciences. He worked on Colloidal Chemistry in research institutes in Russia and in Germany.

This book is a treatise about the various ways in which the water is found in the soil, the study of its dynamics and its availability. It consists of twelve chapters which include the structure and general properties of the water, the free water, physically bound water, chemically bound water, etc. A general review of the



properties of the soil is given and the relations between the properties of soil and water are discussed. The last chapter is devoted to the classification of the various types of water in the soil.

The book is written in a highly technical style, based on physico-chemical principles, thermodynamics and colloidal chemistry. It gives a great deal of information concerning soil-physics, however, some of the subjects are discussed almost on purely theoretical grounds with little reference to soils. Other matters, for instance chemically bound water, are briefly dealt with (chapter III).

It is a well organized work. Literature is cited at the end of each chapter and 1782 useful references are given. A glossary of some of the technical terms used in the text is presented at the end of the volume. It is a highly instructive book particularly useful for advanced students, while the professional scientist may profit a good deal by it. It should be borne in mind however that some knowledge of thermodynamics and colloidal chemistry is required if the reader will profit by the studying of this rich source of specialized information.

C. Luna Zambrano

### **SZABOLCS, I., Editor-in-Chief: A genetitus üzemi talajterképezés módszertkönyve.**

Co-authors: K. Darab, J. Forizs, G. Földvari, F. Jassó and G. Várallyay, Budapest, 1966, pp. 428, graphs, fotogr., col. maps, litt.

This Hungarian handbook on large-scale genetic soil mapping contains summaries in english, german, french and russian languages. It is composed of three parts. The first one gives a detailed description of methods used for soil survey, discusses scale of mapping and describes field survey technics as determination of texture, colour, structure, etc. The second part presents a detailed survey of Hungarian soils with reference to main type, type, sub-type and variant. The key to the genetic Hungarian classification shows 9 main types which are subdivided into 40 so-called types and these into 38 sub-types, about 30 of which show a range of variants. The system seems closely related to the German soil classification. Part III deals with the construction of soil maps. It also supplies the necessary technical information of the soil map for agricultural purposes and discusses accurate methodical preparation of descriptive graphs of soil characteristics and of cartograms for agro-technical recommendations.

### **THE USE OF ISOTOPES IN SOIL ORGANIC MATTER STUDIES.**

Rep. FAO/IAEA Tech. Meeting Brunswick-Völkenrode Sept. 1963. Pergamon Press 1966, pp. 505, 48 photographs, 106 figures, 91 tables.

The book consists of 46 separate contributions classified in 8 sections dealing with the role of soil organic matter in plant nutrition and soil productivity, the fundamental processes of decomposition and humification of organic materials in the soil as well as results and possibilities of isotope techniques in soil organic matter studies.

Most papers are written in English, some are in French or Russian. Among the author's names are several of international fame. The book is well documented (over 1000 references) and contains the discussions held following presentation of the papers.

In the section on plant performance the influence of soil organic matter by virtue of its presence and by effect of its decomposition receive attention. Direct and indirect effects are distinguished such as those on plant metabolism, germination, growth and nutrient uptake, versus for example, a regulating effect on nutrient availability. Some 5 papers deal with absorption and transport of humic substances and other large molecules by plant roots. In this connection the use of  $C^{14}$ -labelled substances, autoradiographic techniques are discussed with their associated difficulties, like  $C^{14}O_2$  entering the root as a decomposition product.

On the subject of chemical structure of soil humus there are contributions on humus formation and incorporation of nitrogen into cyclic compounds. Although one may wonder to what extent work with synthetic humic substances is representative for natural processes, there can be no doubt that the mechanism of certain reactions is being elucidated by means of labelled carbon compound and reaction intermediates.

Problems concerning extraction, fractionation, purification and ion exchange behaviour are reviewed.

Under the heading of decomposition of plant tissue in soil topics like turnover and turnover-time as well as priming action and validity of mathematical models are raised. Interesting is to learn of additional information which can be obtained by use of isotopes only. The action of micro-organisms on decomposing materials, problems involving organically bound sulphur and phosphorus, and the nature of the bond of certain organic nitrogen fractions to soil organic matter are also investigated with isotopes.

The nitrogen transformations are reviewed, new information on, e.g., fixation of nitrite-N by soil organic matter is presented and problems for future research, such as nitrogen transformations within the organic phase, are mentioned.

Experimental isotope techniques are treated in detail: methods and problems of labelling, apparatus for radiocolumn chromatography, micro-electrophoresis, gamma and beta spectrometry, use of  $P^{32}$  in studies of plant decomposition and hydrolysis of organic soil phosphates,  $N^{15}$ -labelling methodology and the necessity of this tracer technique for microbial  $N_2$ -fixation investigation.

The book shows the direction followed by leading scientists to crack open the nearly insurmountable problems surrounding soil humus. It brings together specialist information on numerous topics on which world literature is often incomprehensive and badly in need of review. As such this is a valuable book to all specialists concerned.

C. J. de Mooy

**G. W. COOKE. The control of soil fertility.** Crosby Lockwood & Son Ltd. London

1967. pp. 526, 180 tables, 25 illustrations, 661 references. Price 70/-.

The author of this new major reference book presents crop nutrition principles and methods to improve soil productivity in clear terms. About one-third of the book deals with a discussion of plant nutrients and the fertilizers which contain them: losses, gains and availability of nutrients, merits, use and comparative efficiency of fertilizers. The effort to provide information on subjects not covered in current text books is noticeable in a good chapter on farm manures. Another third begins with nutrient cycles and changes in soil organic matter under various types of vegetation and climatic conditions, which is followed by a discussion of direct and residual effects of fertilizers on growth, composition, yield and quality of agricultural crops. It is completed with a section on soil and plant analysis methods. The final portion of the book is devoted to the various factors affecting yield under three different land utilisation systems: cropping, permanent grassland and ley-farming.

The author is a leading British expert in soil fertility and fertilizer use, located at Rothamsted Experimental Station. He takes a clear stand on the value of fertilizers for modern crop production and thereby accepts a certain decline in organic matter content compared to more traditional systems. In the discussions the role of organic matter is given proper attention. Introductory sections are used to present the points to be raised. More experimental results are given than required to introduce the principles involved so that certain parts of the book become selected field experiment review sections. Although some attention is paid to world literature the emphasis remains on British experience and interpretation for British farming. A discussion of fertilizer responses in the tropics remains superficial.

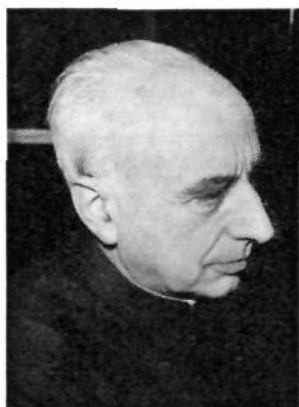
Summing up the book gives an excellent account of the endless changes in relative importance of chemical, physical, biological and climatological factors affecting the productive capacity. Over two-thirds of the many references date from 1960 or later. Interpretation of the many experimental results quoted can contribute considerably to the insight in agronomic problems of scientifically-minded farmers, agricultural advisers, undergraduate students and others concerned with soil productivity.

DE MOOY

## OBITUARY — NECROLOGIE — NEKROLOGIE

José Maria Albareda Herrera †

(1902—1966)



He was born in Caspe (Zaragoza) on the 15th of April 1902 and died in Madrid, on the 27th of March 1966. He studied at the Faculty of Pharmacy of Madrid and the Faculty of Chemical Sciences of the University of Zaragoza. He became a Doctor of the Faculty of Pharmacy in 1927 and in 1931 a Doctor of the Faculty of Sciences.

In the years 1926—1928 he worked at the Institute for Chemistry of Zaragoza and in 1928 he became Professor of Agriculture of the Institute of Huesca.

From 1928 to 1929 he worked at the Institut für Chemie der Land. Hochschule in Bonn, with Prof. Kappen. From 1929 to 1930 he worked at the Agriculturnchemisches Laboratorium of the Eidg. Tech. Hochschule in Zürich with Prof. Wiegner and at the Pflanzenbau-Institut of the University of Königsberg, with Prof. Mitscherlich.

In 1932 he got a scholarship of the "Ramsay" Foundation, from the Royal Academy of Science and worked for two years at the Rothamsted Experimental

Station (England), at Bangor (Wales) and Aberdeen (Scotland).

He was appointed Secretary General of the Consejo Superior de Investigaciones Científicas (Higher Council for Scientific Research), a post he was still holding at his death.

In 1940 he obtained the Chair of Mineralogy and Zoology of the Faculty of Pharmacy of the University of Madrid, which he held until 1960.

In 1942 he founded the Instituto de Edafología y Fisiología Vegetal (Institute for Soil Science and Plant Physiology) of the C.S. de I.C. of which he was appointed Director, a post he also held until his death.

In 1953 he was named *Doctor Honoris Causa* of the Catholic University of Lovaina, and in 1955 he was appointed *Doctor Honoris Causa* of the University of Toulouse.

In 1960 he was appointed Rector Magnifico of the Estudio General de Navarra.

He was an Academician of the Royal Academy of Exact, Physical and Natural Sciences of Madrid (1941), of the Royal Academy of Pharmacy of Madrid (1941) and of the Royal Academy of Medicine of Madrid (1952). Corresponding academician of the Royal Academy of Sciences of Barcelona (1948) and of the Academy of Exact and Physico-Chemical Sciences of Zaragoza (1948). That same year he was nominated Academician of the Pontifical Academy of Sciences in Rome. In 1964 he became Academician of the Academy of Agriculture of France.

He was a member of many national as well as foreign Scientific Societies.

He was awarded several national and foreign decorations.

He held a large number of discourses and lectures, he published five books and over 150 papers.

This is, briefly, the result of a huge effort and work and it is fundamentally to Albareda that we owe the organization of research work in Spain and the founding of the Consejo Superior de Investigaciones Científicas, the Higher Council for Scientific Research, which was his idea and it was he who contributed to its development for twenty-five years.

In this connection we must say that he was the Director and propulsor of the Instituto de Edafología, today the National Institute for Soil Science, where a great number of research workers and collaborators are still working following the example he gave us. For all of us it is a special responsibility to continue his work without his physical presence.

Only a mind with great rapidity of conception, and an extraordinary capacity to understand problems and plan solutions, and above all, a rare spirit of synthese, made it possible for him to carry out such gigantic work.

Undoubtedly the scientific research work carried out by Prof. Albareda has been extraordinary, but we would be unfair if we did not add some words about the man he was.

The 21 years we have been together allow us to recognize the spiritual height of a person who devoted all the moments of his life to the progress of Science, but at heights far over a country, or even the world: trying to contribute to the development of the work of God.

Personally he fulfilled the Counsels of the Gospel to the full extent, always rendering good for bad, not paying attention if he was or was not understood, which brought him many sorrows, but which he accepted with uncomplaining acceptance and joy.

The loss we feel with his disappearance will leave an indelible void in the hearts of all those who knew him.

V. Hernando

**Prof. Dr. A. Musierowicz †**  
(1894—1966)

On April 24, 1966, Professor Dr. A. Musierowicz unexpectedly died. He was a long-time and highly esteemed, honorary president of the Polish Society of Soil Science, head of the Chair of Soil Science, Agricultural University in Warsaw, member of the Polish Academy of Sciences, member of the International Society of Soil Science.



Professor Musierowicz was born at Zgierz in 1894. He completed his higher education in the Faculty of Chemistry, Polytechnic Institute at Lwów, in 1923. In 1926 he obtained the title of doctor in Technical Sciences of that Faculty, and was appointed associate to the Chair of Agricultural Chemistry and Soil Science. During the years 1929—1930 he supplemented his studies in the field of soil physics in Brno with V. Nowak; in the field of weathering processes in Göttingen with E. Blanck and in the field of montane soil formation, physical and chemical soil phenomena in Zürich with G. Wiegner. In 1933 he qualified as lecturer in the Faculty of Agriculture and Forestry of the Polytechnic Institute at Lwów and was appointed head of the Chair of Agricultural Chemistry and Soil Science. In 1936 followed his nomination as extraordinary professor.

During the German occupation he lectured at Dublany until 1944 and afterwards in the Faculty of Soil Science at Skierniewicz. He also took part in the secret academic teaching. In 1945 he was appointed head of the Chair of Soil Science at the Agricultural University of Warsaw and was granted the title of full professor.

During several years he was head of the Faculty of Soil Science at Pulawny. In 1956 he was called to the position of chief of the independent Laboratory of Chemistry and Physics of Soils, Institute of Cultivation and Fertilization of Soils in Warsaw.

The whole period of his scientific work was exceptionally creative. He wrote many scientific essays connected with his specialization, particularly in the field of soil chemistry and fertilization, two monographs, and several handbooks, among which two on general and detailed soil science are representative for his outstanding scientific achievements. Much of his time was further devoted to studies on the absorbing complex in various types and kinds of soils, on the content of microelements in soils and on different forms of humus in soils.

He was the first post-war president of the Polish Society of Soil Science, starting 1946. At the same time he was the chairman of the Commission of Genesis,



Classification and Cartography of Soils. In the Polish Society of Soil Science he worked on the unification of nomenclature and soil classification in Poland. He edited the soil map of Poland on a scale of 1 : 300,000 and was co-author of the soil map on a scale of 1 : 1,000,000, as well as of the soil map of Europe on a scale of 1 : 2,500,000. As chairman of the Commission on Soil Science and Agricultural Chemistry of the Polish Academy of Sciences, he organized two typological soil science conferences with the participation of foreign soil scientists. He took an active part in the International Soil Science Congress in Finland (1938) and France (1956).

Professor Musierowicz was exceptionally active and was one of the few Polish soil scientists who devoted almost their whole life to the development of Polish soil science. As an outstanding specialist in the field of soil chemistry, he created the school of soil science, in which the physical and chemical trend dominates over the morphological one.

His scientific production comprises 170 papers, including 133 scientific and research papers, and 10 handbooks.

For his scientific achievements he was granted twice the State Reward (collective and individual) and for outstanding merits for Science and the Polish State he was decorated with the Chevalier Cross and the Commandery Cross of Polonia Restituta.

Prof. Dr. L. Królikowski  
President of the Polish Society of Soil Science

**Prof. Dr. Věclav Novák †**  
(1888—1967)



Prof. Dr. V. Novák, the Czechoslovak soil scientist, died on March 31st 1967, in Brno in his 79th year. For many years he was an active member of the International Society of Soil Science, namely since 1920, and from that time he took part in almost all sessions and worked in several sections. In the years 1924 to 1930 he was the president of the commission of soil physics. From 1939 to 1945 he held the chair of the Czechoslovak section of the International Society of Soil Science.

He was also a member of the Colloid Society, of the International Commission for economical ecology, of the scientific council of the International Institute of Agriculture in Rome, and a member of the Council of the International Society of Biometeorology, honorable member of the Society of Soil Scientists of the Soviet Union and member of several Czech scientific organizations.

Prof. Dr. V. Novák was born on February 14th 1888, in the village Drencine in eastern Bohemia. He studied soil science at the University of Agriculture with

Professor J. Kopecky in Prague. At this school he was in 1921 admitted as lecturer and in 1926 he was appointed professor of soil science, meteorology and climatology at the University of Agriculture in Brno where he fulfilled also the function of rector. At this school he established a soil science research institute and educated many soil scientists. After his coming to Brno he assisted in the foundation and development of the Research Institutes of Agronomy in Moravia.

Prof. Dr. Novák is the founder of modern Czechoslovak soil science according to the ideas of Prof. Dokutschaiew. He specially worked on the research of soil colloids and their chemistry. Further important publications were on the cartography of soils based on genetic types. His map formed part of Prof. Stremmès General Map of the Soils of Europe.

Other studies prove his broad interest in soil research, e.g. on soil management, physical soil properties as consistency, hygroscoy and structure, mineralogical composition, degree of fertility, etc. On the whole he wrote more than 200 scientific

papers and books. He also tried to solve the relation between soil and vegetation and he is the "auctor intellectualis" of many conceptions in soil ecology.

Many of his scientific works also treat agricultural meteorology, climatology and phenology. For a long time he supervised agricultural research in Moravia.

Over the last year he was keenly interested in bioclimatology and he was the first president of the Bioclimatological Society of the Czechoslovak Academy of Science.

DR. B. VÁLEK

# Soil Classification

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