Bulletin

of the International Society of Soil Science

Bulletin

de l´Association Internationale de la Science du Sol

Mitteilungsblatt

der Internationalen Bodenkundlichen Gesellschaft

Boletín

de la Sociedad International de la Ciencia del Suelo

No. 88 **1995/2**

ISSN:0374-0447.

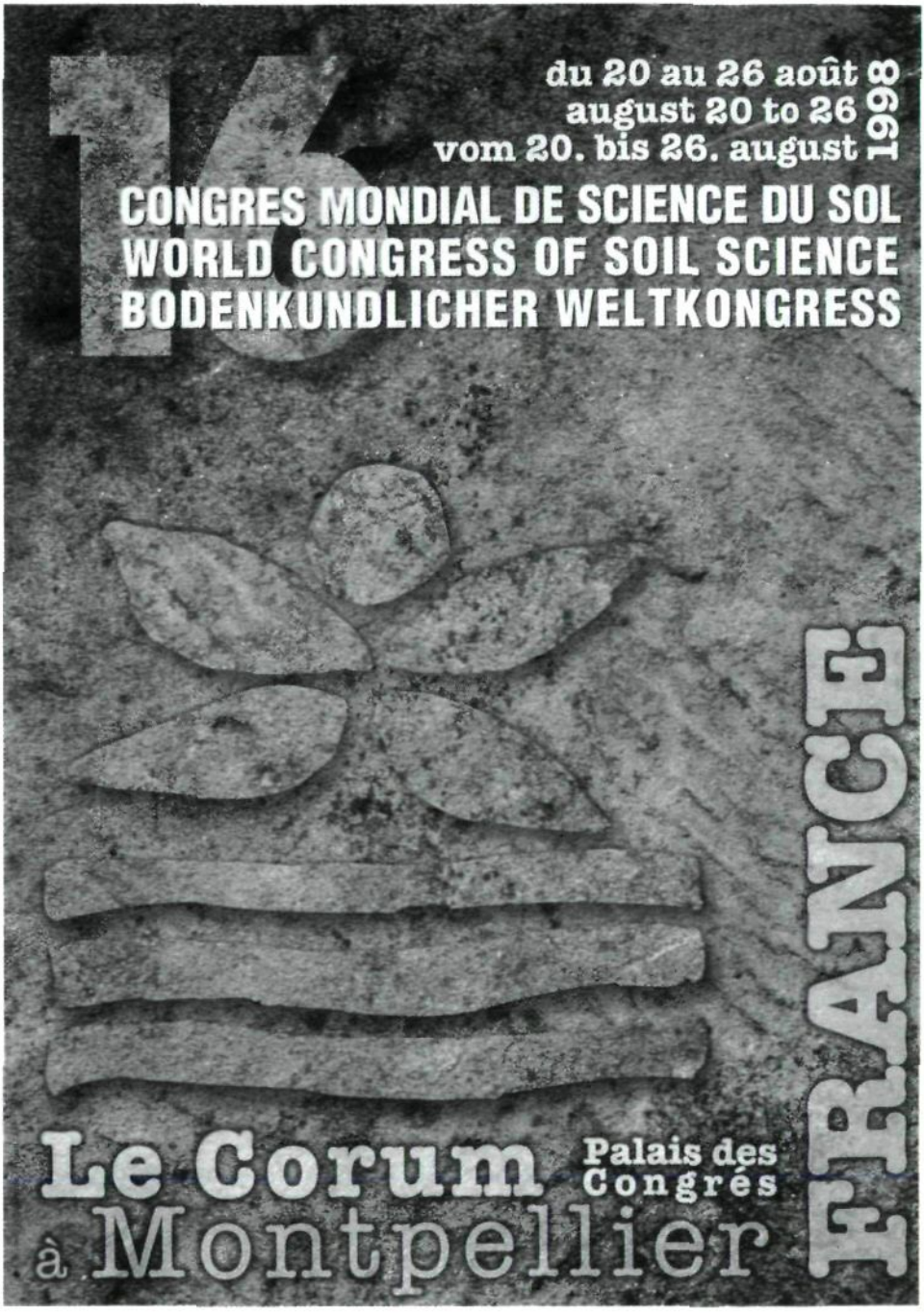
Edited and published by/rédigé et publié par/redigiert und publiziert von:

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

Founded/Fondée/Gegründet: 19-05-1924. Individual membership/Membres indivi duels/Individuelle Mitgliedschaft: 7000. Affiliated national and regional Societies/Associations nationales et régionales affiliées/Angeschlossene nationale und regionale Gesellschaften: 65. A scientific union member of ICSU since/Membre scientifique du CIUS depuis/Wissenschaftliches Mitglied von ICSU seit: 1993.

Seat/Siège/Sitz: c/o Institut für Bodenforschung, Universität für Bodenkultur, Gregor-Mendel-Strasse 33, A-1180 Vienna, Austria. Phone: +43 1 3106026; Fax.: +43 1 3106027.

CONTENTS - SOMMAIRE - INHALT


16
du 20 au 26 août 1998
august 20 to 26
vom 20. bis 26. august
CONGRES MONDIAL DE SCIENCE DU SOL
WORLD CONGRESS OF SOIL SCIENCE
BODENKUNDLICHER WELTKONGRESS
FRANCE
Le Corum
Palais des Congrès
à Montpellier

16TH WORLD CONGRESS OF SOIL SCIENCE

MONTPELLIER (France)

August 20 to 26, 1998

SECOND ANNOUNCEMENT

Adress of the Congress Secretariat:

16ème Congrès Mondial de Science du Sol
Agropolis • Avenue Agropolis • 34394 Montpellier Cedex 5 • France
Tel. (33) 67 04 75 38 • Fax (33) 67 04 75 49
E. mail: isss@agropolis.fr
Server WWW: http://www.cirad.fr/isss.html

---

1 - MONTPELLIER AND ITS REGION

The **16th World Congress of Soil Science** will take place in the centre of **Montpellier, at „Le Corum"** Convention Centre, Esplanade Charles de Gaulle.

Montpellier, capital of the Languedoc-Roussillon region (an urban agglomeration of 350,000 inhabitants), is located 700 km south of Paris, bordering the Mediterranean Sea. Montpellier has easy access: by air (9 daily flights from Paris to Montpellier, lasting 1 hour; numerous direct flights to other cities in France and Europe), by train (6 trains daily between Paris and Montpellier by TGV, the High-Speed Train, in 3h40; numerous links with other French and European cities); by road (highways link Montpellier with all the major cities of France and Europe). Montpellier has 2,500 hotel rooms (all categories), 400 rooms at the university halls of residence, several campsites in the vicinity.

With its 1,000 year history; 3 universities (including the oldest faculties of medicine and law in Europe - 12th and 13th centuries) ; numerous research institutions and « Grandes Ecoles » (colleges of university level, specializing in professional training); 60,000 students and 7,000 teachers and researchers; technopole and the „Euromedecine" (medicine), „Agropolis" (agronomy), „Heliopolis" (tourism), „Antenna" (new media and advanced telecommunications), and data-processing complexes; its many festivals (music, dance, theatre, ...); museums; etc. ... Montpellier is both an ancient and modern city. Moreover, Montpellier and its vicinity is rich in tourist attractions: sun, sea and mountains; beaches and rivers; vineyards and wine; agriculture and pastureland; scrubland and forests; Roman towns and Romanesque churches; old towns and villages with narrow streets; modern and futuristic cities; it has a distinctly Mediterranean flavour and is at the crossroads of many civilizations.

Finally, Montpellier is the site of Agropolis, a large complex for research, study and diffusion of knowledge, specializing in the field of agronomy and food production, with specific relation to the Mediterranean and tropical domains. Agropolis brings together about twenty scientific establishments with 2,000 researchers and teachers: it is one of the world's largest scientific agronomy complexes. Soil science is particularly well represented; six scientific institutions have soil science departments in Montpellier: CIRAD, CNEARC, CNRS, ENSAM, INRA, ORSTOM.

Montpellier's Opéra-Convention Centre, the **„Corum"**, is located in the heart of the city, with numerous conference rooms, covering an overall area of 66,000 m^2, ranging from the 2,000 seat Opera hall to small 50 - 100 seat rooms, and 4,500 m^2 of exhibition halls. The Corum is situated at the edge of the „Ecusson", the old quarter of Montpellier, just next to the „Place de la Comédie", the main townsquare: wonderful places to walk in, relax or have a meal or a drink (several hundred cafés and restaurants).

2 - TOPICS OF THE CONGRESS

*** The general topic selected for the Congress is the following:**

Present functioning of the world soil systems
in relation to the various types of land use by human societies

*** Based on this general topic, five sub-topics are to be treated:**

1 - What are the direct and indirect effects of human societies on pedogenetic factors:

- which human actions affect pedogenesis and how;
- which pedogenetic factors are affected.

2 - What are the consequences of human activities on soils and soil evolutions:

- effects on the formation of pedological materials from rocks (weathering);
- effects on soil characteristics, dynamics, fluxes and transformation fronts;
- effects on erosion.

This refers to work on the orientation and rates of evolutions and transformations.

3 - What are the consequences of these evolutions and transformations, for the potentialities and functions of soils, and for the human activities (whether directly or indirectly related to soil use):

- how to predict these evolutions and their consequences, particularly in regard to major risks (floods, landslides, ...);
- how to take into account the socio-economic dimensions and problems of product quality.

4 - What alternatives are there to dangerous evolutions: how to avoid and correct them.

The alternatives may be of a technical or a socio-economic or political nature.

5 - What overall implications are there for scientific approaches, research methodologies, *scientific programming and for education and extension.*

How this can improve relations between soil scientists and the rest of society.
All entries must take account of:

- fundamental research, finalized research, applications of research results;
- the different levels of organization and functioning of soils:
- all modalities of relationships between human societies and soils agricultural, forestry, industrial, urban, ...);
- the development of interdisciplinarity, within soil sciences and in relation to other scientific disciplines (earth sciences, life sciences, chemical sciences, human sciences, technological sciences, ...).

3 - STRUCTURE OF THE CONGRESS

The Congress will be structured around:

- 5 plenary lectures;
- 45 symposia;
- poster sessions;
- working sessions for the ISSS Council, Executive Committee, Officers, Commissions, Sub-commissions, Working Groups, Standing Committees;
- scientific and technical exhibitions;
- cultural and social events;
- scientific and touristic excursions in the region of Montpellier;
- scientific and touristic excursions in France, Europe, Africa: these excursions will take place before and after the Congress.

4 - GENERAL SCHEDULE OF THE CONGRESS

The general schedule of the Congress is as follows:

- August 11th to August 19th: tours A1, A2, A3, A4.
- Wednesday, August 19th: welcome and registration at the Corum in Montpellier.
- Thursday, August 20th: Opening session; plenary lectures; welcome reception.
- Friday, August 21st and Saturday, August 22nd: symposia and posters; workshops; one day tours (C1 to C5).
- Sunday, August 23rd: free time; one day tours (C1 to C5).

- Monday, August 24th and Tuesday, August 25th: symposia and posters; wokshops; one day tours (C1 to C5).
- Wednesday, August 26th: symposia and posters; workshops; closing ceremony.
- August 27th to September 7th: tours B1, B2, B3, B4, B5, B6, B7, B8.

5 - CONGRESS LANGUAGES

The languages for the Congress will be **French, English, German and Spanish.**

Simultaneous translations in the four languages will be provided throughout the day of August 20th (opening ceremony and plenary lectures).

Simultaneous translation in French and English will be provided for all symposia sessions.

Summaries and texts for symposia and posters may be written in one of the four official Congress languages; however, titles at least must be in English, and if possible in French.

6 - PLENARY LECTURES

Five plenary lectures will be given on Thursday, August 20th, 1998. Each lecture, given by a leading scientist, will describe the state-of-the-art, concerning topics selected for the Congress.

7 - SYMPOSIA AND POSTER SESSIONS

45 symposia will take place on the 21st, 22nd, 24th, 25th and 26th August 1998. Every half-day, 5 symposia will be conducted in parallel (oral presentations and posters).

Symposia topics will be selected by the ISSS Executive Committee, based on the proposals of the Congress Scientific Committee. Selection will be based partly on the topics chosen for the Congress and partly on the scientific imperatives of the ISSS Commissions, Sub-commissions, Working Groups and Standing Committees. The National Societies of Soil Science will be consulted. **The final list of Symposia will be published in June 1996.**

Symposia and poster sessions will be closely linked: each symposium is to comprise a 3 hour session for papers presented orally and a poster session which will take place just before and during the oral presentations. The selection of papers for oral presentations and poster sessions will be made by the Congress Scientific Committee and symposium conveners.

Proposals for papers, in the form of a one-page summary (2,500 characters maximum) must be sent to the Congress Secretariat before **April 30th, 1997.** Candidates may propose no more than two papers, one of which must be in collaboration with other authors; participants may each be first author of no more than one paper.

The final summaries and complete texts of papers accepted by the Congress Scientific Committee must be sent to the Congress Secretariat before **December 31st, 1997.** Summaries and texts must be written in one of the four official languages of the Congress (French, English, German, Spanish); however all papers must bear titles in French and in English.

8 - PROCEEDINGS OF THE CONGRESS

Each participant will be provided with the proceedings of the Congress, comprising:

- a **printed volume of summaries** of the plenary lectures and all papers (oral contributions and posters);
- **a CDRom containing summaries and texts** of the five plenary lectures and all the papers (oral presentations and posters); papers must not exceed 7 pages (16,000 characters);
- **a detailed programme of the Congress.**

Texts of lectures and papers, in printed form and on floppy disks (PC and Mac), will be sold, on request, by **a publications service** during the Congress.

Scientific journals have been contacted in view of publication, at their own responsibility, of all or part of certain symposia.

9 - WORKING SESSIONS

Rooms and time will be allocated to the Council, Executive Committee, Officers, Commissions, Sub-commissions, Working Groups, Standing Committees, etc. ..., for the necessary working sessions.

10 - EXHIBITIONS

For the duration of the Congress, scientific and technical exhibitions will be held for Congress participants and, in certain cases, for the general public of Montpellier. The exhibitions will be presented by scientific and technical institutes as well as industrial and commercial enterprises. Invitations to present an exhibition are extended to all countries.

11 - CULTURAL ACTIVITIES AND SOCIAL EVENTS

Several cultural activities and social events will take place during the Congress. These will include:

- Thursday, August 20th 1998, from 7pm to 12 pm: **welcome reception**, offered by the Organizing Committee;
- Tuesday, August 25 1998, from 7pm to 12pm: **Congress dinner**, in a prestigious location in the region of Montpellier;
- musical and theatrical events;
- visits to the city and region of Montpellier;
- visits to scientific and cultural institutions.

12 - PRE-CONGRESS TOURS

Before the Congress, **four tours** will take place, lasting 5 to 7 days, in France, other European countries and Africa. These tours will combine scientific and touristic interests.

Tour A1: North Eastern France (plus Germany and Switzerland)

* **6 days, 7 nights, from August 12th afternoon to August 19th morning**
* **Itinerary: Nancy, Vittel, Metz, Sarrebrücken (Germany), Strasbourg, Colmar, Besançon, Pontarlier, Lausanne (Switzerland) (approximately 1200 km).**

Emphasis will be placed on the diversity of the regions visited and the effect of human activities on soils and ecosystems. We will deal with 1) pedological systems in various landscapes: the calcerous or clay soils of Lorraine, the acid soils of the middle-range mountains of the Vosges, the wine-producing soils of Alsace, the soils of the karst and acidic peat areas of the plateaux and mountains of the Jura; 2) the effect of human activities on soils and ecosystems: the steel industry, industrial fallows and the rehabilitation of urban land; agriculture and quality control of hydrothermal water (eg. Vittel); acidification of soils and the complex decline of forests; ecosystems and pressure from tourism and economy. Well-known sites will be visited: natural sites: the „hautes chaumes" in the Vosges, forests of the Jura, the plain of Alsace; historical and cultural sites: the „Saline Royales" saltmines of Arc-et-Sénans, Strasbourg, Nancy, the olympic site at Vittel and the famous vineyards of Alsace.

Tour A 2: Belgium - North of the basin of Paris (France)

* **6 days, 7 nights, from August 12th afternoon to August 19th morning**
* **Itinerary: Brussels, Leuven, Gent, Calais, Lille, Laon, Reims, Paris (approximately *1000* km)**

From Brussels to Reims, via Lille and Laon, we will discover the soils and landscapes of the chalk regions, of the sandy and loessic covers of the Tertiary and Pleistocene of southern Belgium and northern France (marked by periglacial features), as well as the recent sands and holocene plain of maritime Flanders. The paleopedological approach, as well as analysis of conservation measures to protect the pedological heritage, will explain the effect of human activities on pedogenesis. Particular attention will be paid to the impact of human activities since Neolithic times (approximately 7000 years) on the evolution of soils: comparison of forest sites with minimal human impact and sites which have been severely affected, notably by hydraulic and agricultural management. Topics will include, in particular, erosion, drainage, regrouping of lands, wars, leisure activities on soil types such as Rendzinas, Glossisols, Alisols, Luvisols, Cambisols, Podzols (land or forestry), Plaggen, Anthrosols. The cultural heritage of the regions crossed will provide an opportunity to visit histori-

cal towns such as Brugge, Gent, not forgetting more recent sites such as the Chemin des Dames, the Atlantic Wall or the Channel Tunnel. Cultural traditions and gastronomic specialities will not be overlooked (brewery, a Champagne wine cellar).

Tour A 3: South-West France

* **5 days, 5 nights, from August 14th afternoon to August 19th afternoon**
* **Itinerary: Bordeaux, Arcachon, Pau, Toulouse, Montauban, Carcassonne, Montpellier (approximately 1300 km).**

The circuit will successively present: the calcerous soils and gravels of the vineyards of Bordeaux, the dune formations on the Atlantic coast and their management, the sandy podzolic soils under irrigated corn monoculture in the Landes of Gascogne, the acidic isohumic soils of the piemont of the Pyrenees and the consequences of their clearing on the carbon stock, the hydromorphic Luvisols of the terrasses of the Garonne and the problems of drainage and water quality, the clay-calcerous soils of the sandstones of Aquitaine and their modifications due to agricultural activities. Topics covered in relation to the diversity of the pedological landscapes and soils observed will be: the relationship between soil and wine quality, the dynamics of the inputs with subterranean fertilizing irrigation, agricultural drainage and water quality, management of organic matter under intensive agriculture, erosion linked to mechanization in steeply sloping areas. The historical and cultural heritage, as well as gastronomic traditions will also be presented through visits to well-known sites and wine-tasting (Pyla dune, vineyards of Bordeaux and Armagnac, Henri IV's castle in Pau, the Capitole in Toulouse, the medieval city in Carcassonne.)

Tour A4: Tunisia

* **7 days, 8 nights, from August 11th evening to August 19th morning**
* **Itinerary: Tunis, Kairouan, Kasserine, Tozeur, Douz, Gabès, Hammamet, Tunis (approximately 1500 km).**

The tour will present landscapes, soils and management, typical of the diversity of the ecosystems of Tunisia, a climatically transitional zone between the Mediterranean and the Sahara. Emphasis will be placed on the functioning of soils in arid and subarid milieux and its use under dry cultivation or irrigation by water with a high salt content. Also to be considered are: the recuperation of very saline soils and the study of their physico-hydric and geochemical behaviour; the functioning and use of soils with calcerous and gypseous accumulation; types of management of steppe soils as well as the fight against desertification and the restoration of degraded steppes. Emphasis will be placed on the particularities and originality of the functioning of the ecosystem in oasis and on the rehabilitation of small hydraulic systems as well as traditional agriculture. These presentations will also provide an opportunity to consider the role of Berber, Arabo-muslim, Roman and Western civilizations in acquiring Tunisian identity.

13 - POST-CONGRESS TOURS

After the Congress, eight tours will take place, lasting 4 to 9 days, in France, other European countries and Africa. These tours will combine scientific and touristic interests.

Tour B 1: Wineproducing Eastern France: Beaujolais, Bourgogne, Champagne

* **8 days, 7 nights, from August 27th afternoon to September 3rd afternoon.**
* **Itinerary: Montpellier, Lyon, Mâcon, Dijon, Beaune, Avallon, Troyes, Châlon-sur-Marne, Reims, Paris (approximately 1600 km).**

From the vicinity of Lyon to the heart of the Champagne area, this circuit will present the soils and the main trends in exploitation of three highly contrasting regions. The underlying theme will, of course, be vineyards in all their diversity: steep slopes on the granite and volcanic rocks of Beaujolais; the famous Bourguignon calcareous hillsides of Beaune and Nuit, with their renowned vintages as well as Chablis, further north; the prestigious name of Champagne. But these regions cover many other aspects: deciduous high-altitude forests in Haut-Beaujolais and deciduous forested massifs in the Saône plain and in the wetter part of Champagne; Charolais beef livestock-producing prairies in Auxois; large cereal- producing areas on the limestone plateaux of Bourgogne and the dry part of Champagne. Various agro-environmental issues will be approached in relation to the main

types of soil encountered (alluvial soils, Leptosols, Cambisols, calcerous soils, Luvisols, Planosols): management of soils; mineral fertility and water quality; erosion; control of inputs (fertilizers, pesticides, diverse pollutants ...); management of the biomass; rock-soil-wine relationships, quality of wine production. Throughout the tour, we will visit sites steeped in history: the hospices of Beaune, the palace of the Ducs de Bourgogne in Dijon, the Vézelay basilica, medieval quarters of Avallon and Troyes, Reims cathedral; winetasting in famous wine cellars.

Tour B 2: Central France, Loire Valley

- **8 days, 7 nights, from August 27th afternoon to September 3rd midday.**
- **Itinerary: Paris, Orléans, Chambord, Blois, Tours, Angers, Châtelleraut, Poitiers, Paris (approximately 1400 km).**

Travelling down the Loire: soils, castles, vineyards. Emphasis will be placed on the diversity of the natural regions, along the Loire which is the natural, historical, cultural and economic axis of the southern part of the Parisian Basin. We will study: the limono-calcerous soils of Beauce; the leached and hydromorphic acid soils on sands and clays, a domain of forests and lagoons; the silty hydromorphic and slaked soils on flint clay; soils created from limestone and glouconite chalk in the vineyards of the Loire Valley; the edge of the Armorican socle; the calcerous soils and red clay soils of Poitou. Regional examples will be used to illustrate the following themes: the impact of intensive agriculture and drainage on the quality of water; management of water in intensive, irrigated agriculture; the natural physical fertility of soils and forest management; the soil-vineyard-wine relationships; development of soils and leisure activities; soils and archeology; pedological cartography conducted in France. Regional history and culture will also be approached from prehistoric times (Acheulean tools of the Grand Pressigny), up to the Renaissance castles (Sully, Blois, Chambord, Chenonceaux) and the Futuroscope in Poitiers. The towns of Orléans, Blois, Saumur and Angers will be visited as well as the vineyards of Chinon and Saumur (winetasting).

Tour B 3: Massif Armoricain (France), Devon, Cornwall (Great Britain)

- **8 days, 7 nights, from August 27th afternoon to September 3rd evening.**
- **Itinerary: St Brieuc, St Malo, Mont St Michel, Fougères, Rennes, Ancenis, Guérande, Vannes, Quimper, Brest, Roscoff, Plymouth, Dartmoor, Penzance, Lizard Point, London (approximately 1400 km).**

From St Malo to Plymouth, across Brittany, Devon and Cornwall, researchers and engineers in development will help to discover the varied pedolandscapes: ancient acidic rock massifs (shales and granites of Brittany, carboniferous shales of Devon, granites of Dartmoor, serpentinites and loess of Lizard Point), the polders of Mont Saint Michel, the alluvial zone of the Torridge basin. The themes approached will deal with: the impact of intensive agriculture (based on maize, grass and horticulture); the role of superficial runoff, drainage and land management on the transfers of nitrates and pesticides; establishment of water path on the watershed scale and its implications for coastal waters. The functioning of forest soils and of sites of ecological importance (the polder of Mont Saint Michel, the marshes of Grande Brière, the „Natura 2000" reserve of Lizard Point) will also be presented. Soils observed belong to Cambisol, Luvisol, Glossisol, Gleysol, Anthrosol and Histosol groups. This scientific tour will also provide an opportunity of visiting the exceptional site of Mont Saint Michel, old towns and castles, Fougères, Rennes, Quimper, Locronan, Saint Malo, Dartmoor, Exeter; the twisted landscapes of the pink granite coast, the Dartmoor moors, Lizard Point, as well as tasting regional delicacies such as Breton pancakes and seafood.

Tour B 4: The Alps, Rhône Valley (France, Switzerland)

- **8 days, 7 nights, from August 27th morning to September 3rd afternoon.**
- **Itinerary: Montpellier, Valence, Grenoble, Aussois (Maurienne), Val d'Isère, Beaufort (Les Saisies), Martigny (Chamonix), Lausanne, Geneva (approximately 1300 km).**

From the Mediterranean up to the Swiss plateaux bordering Lake Leman, the tour will take us through a large part of the Alps, via the highest mountain passes of Europe, with the discovery of the impressive panoramas of the Ecrin massifs and Mont Blanc, as well as an introduction to the contrasts and diversity of these milieux. In the piedmont Alps, man has progressively transformed the plains area in an attempt to exploit it to his advantage (hydro-electric installations, irrigation, com-

munication lines and transportation of energy, etc. ...). Fluvio-glacial formations were conserved during the entire quarterly period; such conditions facilitate the study of the alteration of these materials, in relation to the duration of evolution (2 million years), and the study of the associated red paleosol systems. The „soil-wine quality" relations will also be considered, on the famous hillsides of the Côtes du Rhône, together with problems linked to intensive and irrigated agriculture (nitrogen pollution, lagooning). In the mountainous zones, which are far more sensitive and fragile, man's traces are fortunately more discreet. The orientation of pedogenesis in these milieux is somewhat exceptional and is linked to highly contrasting ecological conditions (dry Alps, internal Alps, wet Alps) as well as stationary local conditions (type of rock, morphology, cryoturbation, snow coomb, rock-fall). In these regions, man has had to adapt, not only his production in order to survive: forest, pasture, mountain pasture, but also his activities: tourism, ski slopes. Experts in these fields will discuss present problems and some possible solutions in the face of recent developments: plantations, respect for the environment, search for quality of local products.

Tour B 5: Morocco

* **5 days, 6 nights, from August 27th evening to September 2nd morning.**
* **Itinerary: Marrakech, Beni Mellal, Fez, Rabat (approximately 1300 km).**

In Morocco, like in many other arid and semi-arid countries, water is one of the most limiting factors for crop production. In these conditions, both agricultural and rural developments are based on irrigation. For sustainable development under irrigation the monitoring of soil and water qualities is necessary. In fact, irrigation water with variable salt concentration leads progressively to the degradation of both physical and chemical soil characteristics (compaction, salinisation), especially if drainage conditions are not perfectly assured. In passing through the plaines of Haouz, Tadla and Gharb regions, all these phenomena will be studied in relation to a variety of soil types: arid and salt affected soils, mediterranean soils. Two imperial cities which had a significant influence on the history of Morocco (Fes and Marrakech) will be visited. This field tour will be an opportunity to appreciate the important efforts made by Morocco in the field of large scale irrigation and to understand the development of different soils and water qualities after more than 30 years of intensive irrigation, using water of different quality.

Tour B 6: South-western Germany

* **4 days, 5 nights, from August 27th afternoon to September 1st morning.**
* **Itinerary: Mulhouse, Breisach, Schluchsee, Konstanz, Stuttgart (approximately 600 km).**

This excursion tries to combine the study of landscapes and soils with a demonstration of environmental problems in South-West Germany. The itinerary will pass the picturesque landscapes of the upper Rhine valley, including the ancient Kaiserstuhl volcano, through the Black Forest and the Hegau mountains to lake Constance, the subalpine hills of the Allgäu and will end at Stuttgart. The soil will include regosols, cambisols, chromic luvisols, then podzols, stagnosols, rendzic leptosols and vertic cambisols, and finally gleysols and histosols. The demonstration will be based on the catena. Problems of intensive agriculture, forest decline, water pollution and trace gas emissions will be covered. There will be sightseeing in the medieval cities of Freiburg and Konstanz, romanesque and gothic churches at Breisach, Freiburg and Ulm.

Tour B 7: West Africa (Burkina Faso, Ivory Coast)

* **9 days, 10 nights, from August 27th evening to September 6th morning**
* **Itinerary: Ouagadougou, Dori, Ouagadougou, Bobo Dioulasso, Korogho, Bouaké, Yamoussokro, Abidjan (approximately 2000 km).**

From North to South, skirting the Sahara and down to the Gulf of Guinea, the tour will cover a wide pluviometric gradient (500 to 2000 mm/yr), from the tiger bushlands and the Sahelian steppes to dense, humid subequatorial forests, passing through intermediary savannahs with contrasting climates. The itinerary will show the pedological systems typical of these areas. It will show the effects of geological and geomorphological factors on the differentiation of the pedological covers: ferruginous unleached soils, subarid soils and sodic soils on a sandy dune formation, and soils of an endoeïric system, in the North; iron pan and leached ferruginous soils on granite, eutrophic brown soils and iron pan glacis linked to the basic rocks of the Sahelian savannah, in the Centre; the tran-

sition between ferralitic soils and ferruginous soils on sandstone in Southern Burkina Faso; ferralitic soils on granite and shale in savannah and forest zones, hydromorphic soils of the rice valley, weakly developed soils on sandy coastal deposits, in the Ivory Coast. These differentiations all have important consequences on the use of land: the tour will spotlight the diversity of types of agricultural, pastoral and forestry activities as a result of the constraints and potentialities of the soils and climate; activities which lead to very varied results and which will be analysed. Finally, the tour will reveal the touristic and cultural richness of the regions crossed, presenting traditional song and dance, visits to sites and local curiosities as well as encounters with important African tribal figures. It will help to understand the life, customs and traditions of the different countries we travel through.

Tour B 8: **Spain, Catalonia**

* **7 days, 6 nights, from August 27th morning to September 2nd afternoon**
* **Itinerary: Montpellier, Lleida, Quinto de Ebro (Zaragoza), San Juan de Flumen (Huesca), Mollerussa, Girona, Villafranca, Barcelona (approximately 2300 km).**

The tour will present the soils and dry or irrigated land use, in the North-eastern part of Spain, where the climate varies from arid to Mediterranean subhumid. In the most arid part (Ebro Valley), the main characteristics of soil development are the existence of calcic or gypseous horizons which are more or less hardened and the themes discussed will be the soil-landscape-morphology relations, soil cartography, use of gypseous horizon soils, adapting irrigation to soil types, hydro-agricultural management, irrigation with saline water, restoration of soils with high salt content, drainage by submerged pipes. In the context of the Mediterranean climate, two very different aspects will be dealt with. In the wine-producing sector, which is highly sensitive to erosion, several problems will be studied, notably those of: morphology and erosion of soils, type of soil and wine quality, soil and water conservation, rainfall and soil conservation, the interests of the SIGs in studying these problems. Finally, in another sector, a very different type of soil organization will be studied, and discussion will revolve around the difficulty of combining problems of water development with those of using animal waste. The magnificent Spanish landscape we travel through will be commented on and there will be time to marvel over the well-known tourist sites to be visited.

14 - TOURS DURING THE CONGRESS

During the Congress, **five tours,** lasting a day each, will be conducted in the Montpellier region. These tours will combine scientific and touristic interests.

Tour C 1: **The Camargue and Rhône Delta**: a nature reserve combined with original agriculture (irrigated rice, bull- and sheep-rearing) and a salt industry. Competing activities are conducted side-by-side and are reconciled within a fragile, restrained area, the natural flora and fauna of which are protected. A survey of the different soils will be done. We will visit a herd of bulls in the Camargue and a wine cellar of a vintage produced on sandy soil.

Tour C 2: **The Languedoc plains, with the Hérault as a case in point:** vine monoculture and its conversion; controlling vine yields and wine quality. Truffle-growing: one possible conversion. Survey of the different soils. We will visit the Hérault Gorges, the 11th century abbey and village of Saint Guilhem-le-Désert, Clamouse cave, a wine co-operative.

Tour C 3: **The middle valley of the Hérault and the foothills of the Black Mountains:** hydric functioning of vines in the plains; visit to an experimental hydrological watershed. The relations between soils and wine quality in hillside conditions (vineyards of Faugères - Saint Chinian). Problems of pesticide pollution. Survey of different soils. We will visit the dolomite Circus of Mourèze, the St Chinianais, the Salagou basin with its red, Permien sandstone, ruiniform chaos and bad-lands.

Tour C 4: **The upper scrublands of the Hérault:** dry, Mediterranean, middle range mountains; a transition zone between the Grandes Causses limestone plateau and the coastal plain vineyards. The diversification of activities may be observed as complementary to urban activities (Montpellier). We will see traditional systems (sheep, vines) and more recent ones (fir trees, milk, market gardening). We will look at scrubland flora and the discontinuous soils of the karst zones. Survey of different soils. We will visit the Causses with its grottos and caves (Demoiselle, Laroque), the Glassworkers' Trail in Couloubrines (16th century), the wine cellars of Pic Saint Loup.

Tour C 5: **The coastal plain and Clape massif.**: history of the seaside lagoons and ponds ; con-

trasts between the coastline and the karst massif on the edge of the sea; vineyards and their produce; pollution of the lagoons; lagooning; truffles in the scrublands. Survey of different soils. We will visit Maguelone Cathedral, the Mont Saint Clair in Sète, the City of Agde, the Clape massif in the Corbières.

15 - COSTS

*** Registration fees for Congress participants,** for those who register and pay before December 31st, 1997, will be approximately:

- **member of ISSS: 2200 French francs** per person (approximately 440 $ US at the present rate of exchange).
- **no member of ISSS: 2700 French francs** per person (approximately 540 $ US at the present rate of exchange).

Those who register and pay after December 31st will pay an extra 20% charge. Students will benefit from a reduced rate. **Authors of papers must pay their registration fees before December 31st, 1997.**

*** Registration fees for accompanying persons ,** for those who register and pay before December 31st 1997, will be approximately **350 French francs** per person (approximately 70 $ US, at the present rate of exchange). For those who register and pay after December 31st 1997, there will be an extra 20% charge.

*** Participation in the Congress dinner,** for those who register and pay before December 31st 1997, will be approximately **350 French francs** per person (approximately 70 $ US, at the present rate of exchange). For those who register and pay after December 31st 1997, there will be an extra 20% charge.

*** Participation in day tours during the Congress,** for those who register and pay before December 31st 1997, will be approximately **500 French francs** per person (approximately 100 $ US, at the present rate of exchange). For those who register and pay after December 31st 1997, there will be an extra 20% charge. **Only those tours for which sufficient numbers are registered and have paid before December 31st, will take place.**

*** The Cost of participating in tours which take place before and after the Congress,** will vary; prices will be approximately as follows (double room, including all meals; excluding conveyance to and from the place of departure; the prices in US dollars according to the present rate of exchange):

A1 =	**5500 FF**	**(1100 $US)**	**B3 =**	**5600 FF**	**(1120 $US)**
A2 =	**4900 FF**	**(980 $US)**	**B4 =**	**5200 FF**	**(1040 $US)**
A3 =	**4200 FF**	**(840 $US)**	**B5 =**	**4500 FF**	**(900 $US)**
A4 =	**3500 FF**	**(700 $US)**	**B6 =**	**3700 FF**	**(740 $US)**
B1 =	**5300 FF**	**(1060 $US)**	**B7 =**	**7000 FF**	**(1400 $US)**
B2 =	**5400 FF**	**(1080 $US)**	**B8 =**	**4000 FF**	**(800 $US)**

Group rates will be proposed for conveyance.

Prices are valid for those who register and pay before December 31st 1997; there will be an extra charge of 10% for those who pay after December 31st 1997.

Only those tours in which sufficient numbers are registered before December 31st 1997, will take place.

16 - INFORMATION AND REGISTRATION

* From November 1st 1995, information concerning the Congress will be available on Internet WWW interface, at the following address:

http://www.cirad.fr/isss.html

Information will be regularly updated.

* **The notice-of-intent form for participation** in the Congress (see below) must be sent to the Secretarial Office before **April 1st 1996.** This notice-of-intent form may be filled in and sent via Internet by using the page reserved for this purpose on the WWW server cited above.

Attention: only those who have sent their notice-of-intent forms will receive, by mail, the ensuing information about the Congress.

* The final programme for the Congress and the registration forms will be sent as from June 1996.

* Registration and papers may be sent via Internet by using the pages reserved for this purpose on the WWW server cited above.

* Proposals for papers, in the form of a one-page summary (maximum 2 500 characters), must be sent to the Congress Secretariat no later than **April 30th 1997.**

* Final summaries and complete texts of papers accepted by the Congress Scientific Committee (7 pages or maximum 16 000 characters) must be sent to the Congress Secretariat no later than **December 31st 1997.**

* **The closing date for registration fees and payment for tours is December 31st 1997:**

- for authors of papers;
- for registration without extra charge;
- for payment of tours without extra charge.

Registration for the Congress and tours, for those who are not presenting papers, will be possible, depending on places available, up to the start of the Congress (prices will include an extra charge of 20%).

17 - CONGRESS ORGANIZERS

The 16th World Congress of Soil Science is jointly organized by AFES, the French Society of Soil Science, and by the ISSS, the International Soil Science Society.

President of the Organizing Committee:
Alain RUELLAN, President of ISSS

*

Vice-President of the Organizing Committee:
Marcel JAMAGNE, President of AFES and Vice-President of ISSS

*

Chairman of the Scientific Committee:
Georges PÉDRO

*

The 16th World Congress of Soil Science
is under the patronage and is financially backed by:

Ministry of Foreign Affairs; Ministry of Agriculture, Fishery and Food;
Ministry of Cooperation; Ministry of the Environment; Secretary of State for Research; Council of the Languedoc-Roussillon Region; Council of the Hérault Department;
Montpellier District; City of Montpellier;
Agropolis; CEMAGREF; CIRAD; CNEARC; CNRS; ENSAM; INRA; ORSTOM;
ACCT; European Commission; FAO; ICSU; UNESCO.

Attention:
Only those who have sent their notice-of-intent forms (see next page) will receive, by mail, the ensuing information about the Congress.

Montpellier (France)
August 20th to 26th 1998

NOTICE OF INTENT

to be sent no later than **April 1st 1996**

16ème Congrès Mondial de Science du Sol
Agropolis • Avenue Agropolis • 34394 Montpellier Cedex 5 • France
Tel. (33) 67 04 75 38 • **Fax** (33) 67 04 75 49
E.mail: isss@agropolis.fr • **Server WWW:** http://www.cirad.fr/isss.html

Prof., Dr., Mr., Mrs, Miss

....
Surname **First names**

Mailing address:..

....

....

Telephone: .... **Fax:**..................................

E.mail: .... **Telex:** ....

I am member of ISSS: yes ☐ no ☐
I expect to attend the Congress: sure ☐ probable ☐
I expect to be accompanied by..............**persons**
I expect to present a paper: ☐

topic of paper: ....

....

name of commission, sub-commission, working group or standing committee:.............

....

I intend to participate in one or more tours (indicate which ones):

• pre-Congress: **A** ..... • post-Congress: **B** ..... • during Congress: **C** .....

My accommodation preference is (approximate 1995 prices per night; prices are subject to modification):

	single	double
4 star Hotel	☐ (450-500 francs)	☐ (500-550 francs)
3 star Hotel	☐ (360-400 francs)	☐ (400-450 francs)
2 star Hotel	☐ (200-300 francs)	☐ (300-350 francs)
1 star Hotel	☐ (150-250 francs)	☐ (200-300 francs)
University Hall of ResidenceCampsite	☐	☐ (600 francs for two weeks)

Date .... **Signature** ....

16ÈME CONGRÈS MONDIAL DE SCIENCE DU SOL

MONTPELLIER (France)

20 au 26 août 1998

DEUXIÈME ANNONCE

Adresse du Secrétariat du Congrès:

16ème Congrès Mondial de Science du Sol
Agropolis • Avenue Agropolis • 34394 Montpellier Cedex 5 • France
Tél. (33) 67 04 75 38 • Fax (33) 67 04 75 49
E.mail: isss@agropolis.fr
Serveur WWW: http://www.cirad.fr/isss.html

1 - MONTPELLIER ET SA RÉGION

Le **16ème Congrès Mondial de Science du Sol** se déroulera au centre de **Montpellier,** au Palais des Congrès **Le Corum,** Esplanade Charles de Gaulle.

Montpellier, capitale de la région Languedoc-Roussillon (agglomération urbaine de 350.000 habitants), est située à 700 km au Sud de Paris, en bordure de la mer Méditerranée. Montpellier est d'accès facile: par avion (9 vols quotidiens Paris-Montpellier, 1 heure de vol; nombreux vols directs avec d'autres villes françaises et européennes), par train (6 liaisons quotidiennes Paris-Montpellier par TGV, le Train à Grande Vitesse, en 3h40; nombreuses relations avec d'autres villes françaises et européennes); par la route (l'autoroute relie Montpellier à toutes les grandes villes de France et d'Europe). Montpellier a 2.500 chambres d'hôtels (de toutes catégories), 400 chambres en cités universitaires, plusieurs campings aux alentours.

Avec: ses 1.000 ans d'histoire; ses 3 Universités (dont les plus anciennes facultés d'Europe en médecine et en droit, 12ème et 13ème siècles); ses nombreux Instituts de Recherche et Grandes Ecoles d'enseignement supérieur; ses 60.000 étudiants et 7.000 enseignants et chercheurs; sa technopole et ses pôles Euromédecine (médecine), Agropolis (agronomie), Héliopolis (tourisme), Antenna (nouveaux médias et télécommunications avancées), Informatique; ses nombreux festivals (musique, danse, théâtre, ...); ses musées; etc .... Montpellier est une ville à la fois ancienne et moderne. En outre, Montpellier et ses alentours sont riches d'attraits touristiques: soleil, mer et montagne; plages et rivières; vignes et vins; agriculture et pâturages; garrigues et forêts; villes romaines et églises romanes; villes et villages anciens aux rues étroites; cités modernes et futuristes; c'est pleinement le monde méditerranéen, carrefour de nombreuses civilisations.

Enfin, c'est à Montpellier que se situe Agropolis, grand ensemble de recherche, d'enseignement et de diffusion des connaissances, spécialisé dans le domaine de l'agronomie et de l'alimentation, en particulier pour tout ce qui concerne le monde méditerranéen et tropical. Agropolis rassemble une vingtaine d'établissements scientifiques et 2.000 chercheurs et enseignants: il est l'un des plus grands complexes scientifiques agronomiques à l'échelle mondiale. La science du sol y est particulièrement bien représentée; six institutions scientifiques ont, à Montpellier, des départements de science du sol: le Cirad, le Cnearc, le Cnrs, l'EnsaM, l'Inra, l'Orstom.

A Montpellier, le Corum, Opéra - Palais des Congrès, situé en plein coeur de la ville, offre 66.000 m² de surface, avec de nombreuses salles, depuis l'Opéra de 2.000 places jusqu'aux petites salles de 50 à 100 places, 4.500 m² d'exposition. Le Corum est situé en bordure de « l'Ecusson », la vieille ville de Montpellier, à 2 pas de la Comédie, la place centrale de la ville: lieux merveilleux pour se promener, se détendre, se restaurer (plusieurs centaines de cafés et de restaurants).

2 - LES THÈMES DU CONGRÈS

*** Le thème général retenu pour le congrès est le suivant:**

Fonctionnement actuel des systèmes pédologiques mondiaux en relation avec les divers types d'utilisation des sols par les sociétés humaines

*** A partir de ce thème général, cinq entrées thématiques sont prévues:**

1 - Quelles sont les influences directes et indirectes des sociétés humaines sur les facteurs de pédogenèse:

- quels sont les actes humains qui influencent la pédogenèse et comment;
- quels sont les facteurs de pédogenèse qui sont influencés.

2 - Quelles sont les conséquences des activités humaines sur les sols et sur leurs évolutions:

- influences sur la formation des matériaux pédologiques à partir des roches (altération);
- influences sur les caractères, les dynamiques, les flux, les fronts de transformations;
- influences sur les érosions.

Il s'agit de travailler sur les sens et sur les vitesses des évolutions et des transformations.

3 - Quelles sont les conséquences de ces évolutions et transformations, d'une part sur les potentialités et sur les fonctions des sols, d'autre part sur les activités humaines, qu'elles soient ou non directement liées à l'utilisation des sols:

- comment prévoir ces évolutions et leurs conséquences, en particulier pour ce qui est des risques majeurs (inondations, glissements de terrain, ...);
- comment prendre en compte les dimensions socio-économiques, les problèmes de qualité des produits.

4 - Quelles alternatives par rapport aux évolutions dangereuses: comment éviter et comment corriger.

Les alternatives peuvent être d'ordre technique et d'ordre socio-économique et politique.

5 - Quelles conséquences de l'ensemble sur les démarches scientifiques, sur les méthodologies de recherche, sur la programmation scientifique, sur l'enseignement et la vulgarisation.

Comment tout ceci peut améliorer les relations entre les spécialistes en science du sol et l'ensemble de la société.

Toutes ces entrées doivent prendre en compte:

- les recherches fondamentales, les recherches finalisées, les applications des résultats des recherches;
- les différents niveaux d'organisation et de fonctionnement des couvertures pédologiques;
- toutes les modalités de relations entre les sociétés humaines et les couvertures pédolo giques (agricoles, forestières, industrielles, urbaines, ...);
- le développement de l'interdisciplinarité, à l'intérieur des sciences du sol et vers les autres disciplines scientifiques (sciences de la terre, sciences de la vie, sciences chimiques, sciences de l'homme et de la société, sciences technologiques, ...).

3 - LA STRUCTURE DU CONGRÈS

Le Congrès sera structuré autour de:

- 5 conférences introductives;
- 45 symposiums;
- des sessions de communications affichées (posters);
- des sessions de travail pour le Conseil, le Comité Exécutif, le Bureau, les Commissions, les Sous-commissions, les Groupes de travail, les Comités permanents de l'AISS;
- des expositions scientifiques et techniques;
- des manifestations culturelles et conviviales;
- des excursions scientifiques et touristiques dans la région de Montpellier;
- des excursions scientifiques et touristiques, en France, en Europe, en Afrique: ces excursions auront lieu avant et après le Congrès.

4 - LE DÉROULEMENT DU CONGRÈS

Les grandes lignes du déroulement du Congrès seront les suivantes:

- du 11 au 19 août: excursions A1, A2, A3, A4.
- mercredi 19 août: accueil et inscriptions au Corum de Montpellier.
- jeudi 20 août: séance inaugurale; conférences introductives; soirée d'accueil. vendredi 21 et samedi 22 août: symposiums et posters; sessions de travail; excursions d'une journée (C1 à C5).
- dimanche 23 août: repos; excursions d'une journée (C1 à C5). vlundi 24 et mardi 25 août: symposiums et posters; sessions de travail; excursions d'une journée (C1 à C5).
- mercredi 26 août: symposiums et posters; sessions de travail; séance de clôture.
- du jeudi 27 août au 7 septembre: excursions B1, B2, B3, B4, B5, B6, B7, B8.

5 - LES LANGUES DU CONGRÈS

Les langues du Congrès seront **le Français, l'Anglais, l'Allemand et l'Espagnol.**

La traduction simultanée dans les quatre langues sera assurée toute la journée du 20 août (séance inaugurale et conférences introductives).

La traduction simultanée Français - Anglais sera assurée dans toutes les sessions de symposiums.

Les résumés et les textes des communications (symposiums et posters) pourront être écrits dans l'une des quatre langues du Congrès; cependant, toutes les communications devront comporter, au moins, un titre en Anglais et, si possible un titre en Français.

6 - LES CONFÉRENCES INTRODUCTIVES

Cinq conférences introductives seront données, le jeudi 20 août 1998. Chacune de ces conférences, prononcée par une personnalité scientifique, fera le point des connaissances concernant certains des thèmes retenus pour le Congrès.

7 - *LE SYMPOSIUMS ET LES SESSIONS DE POSTERS*

45 symposiums auront lieu les 21, 22, 24, 25 et 26 août 1998. Chaque demi-journée, 5 symposiums se tiendront en parallèle (communications orales et posters).

Les thèmes des symposiums seront choisis par le Comité Exécutif de l'AISS, sur propositions du Comité Scientifique du Congrès. Les choix se feront en fonction, d'une part des thèmes retenus pour le Congrès, d'autre part des préoccupations scientifiques des Commissions, Sous-commissions, Groupes de travail et Comités permanents de l'AISS. Les Associations Nationales de Science du Sol sont également consultées. **La liste définitive des symposiums sera diffusée en juin 1996.**

Symposiums et sessions de posters seront étroitement associés: chaque symposium comprendra une séance de 3 heures pour les communications orales et une séance de posters qui se tiendra juste avant et pendant la séance de communications orales. Les répartitions des communications entre les séances de communications orales et les séances de posters seront décidées par le Comité Scientifique du Congrès et par les animateurs des symposiums.

Les propositions de communications, sous la forme d'un résumé d'une page (2 500 signes maximum), devront être envoyées au Secrétariat du Congrès avant le **30 avril 1997.** Chaque participant aura le droit, au maximum, à deux communications, une des deux devant être en collaboration avec d'autres auteurs; chaque participant ne pourra être premier auteur que d'une communication.

Les résumés définitifs et les textes complets, des communications acceptées par le Comité Scientifique du Congrès, devront être envoyés au Secrétariat du Congrès avant le **31 décembre 1997.** Les résumés et les textes des communications pourront être écrits dans l'une des quatre langues officielles du Congrès (Français, Anglais, Allemand, Espagnol); cependant, toutes les communications devront comporter, au moins, un titre en Français et un titre en Anglais.

8 - LES ACTES DU CONGRÈS

Les actes du Congrès, fournis à chaque congressiste au début du Congrès, comprendront:

- **un volume imprimé des résumés** des cinq conférences introductives et de toutes les communications (orales et posters);

- **un CD Rom comprenant les résumés et les textes,** des cinq conférences introductives et de toutes les communications (orales et posters); la longueur du texte de chaque communication ne devra pas dépasser 7 pages (16 000 signes);
- **le programme détaillé du déroulement du Congrès.**

Pendant le Congrès, **un service d'édition** vendra, à la demande, les textes, sur papier et sur disquettes (PC et Mac), des conférences et des communications.

Des contacts ont été pris avec des revues scientifiques pour publication, sous leur responsabilité, de tout ou partie de certains symposiums.

9 - LES SESSIONS DE TRAVAIL

Des salles et des espaces horaires seront mis à la disposition du Conseil, du Comité Exécutif, du Bureau, des Commissions, des Sous-commissions, des Groupes de travail, des Comités Permanents de l'AISS, etc..., pour la tenue des sessions de travail qui leur sont nécessaires.

10 - LES EXPOSITIONS

Pendant toute la durée du Congrès, il y aura des expositions scientifiques et techniques, ouvertes aux congressistes et, pour certaines d'entre elles, au public de Montpellier. Les exposants seront des institutions scientifiques et techniques ainsi que des entreprises industrielles et commerciales. Tous les pays sont invités à proposer des expositions.

11 - LES ACTIVITÉS ET MANIFESTATIONS CULTURELLES ET CONVIVIALES

Pendant toute la durée du Congrès, plusieurs activités et manifestations culturelles et conviviales auront lieu. Citons, en particulier:

- le jeudi 20 août 1998, de 19 à 24 heures: **soirée d'accueil,** offerte par le Comité d'Organisation;
- le mardi 25 août 1998, de 19 à 24 heures: **dîner du Congrès,** dans un lieu prestigieux de la région de Montpellier;
- soirées musicales et théâtrales;
- visites de la ville et de la région de Montpellier;
- visites des institutions scientifiques et culturelles.

12 - LES EXCURSIONS AVANT LE CONGRÈS

Avant le Congrès, **quatre excursions,** de 5 à 7 jours auront lieu, en France, en Europe et en Afrique. Ces excursions seront à la fois scientifiques et touristiques.

Excursion A 1: Nord-Est de la France (plus Allemagne et Suisse)

*** 6 jours, 7 nuits, du 12 août après-midi au 19 août matin**
*** Itinéraire: Nancy, Vittel, Metz, Sarrebrûcken (Allemagne), Strasbourg, Colmar, Besançon, Pontarlier, Lausanne (Suisse) (environ 1200 km).**

L'accent sera mis sur la diversité des régions visitées et l'influence des activités humaines, sur les sols et sur les écosystèmes. On traitera 1) de systèmes pédologiques dans des paysages variés: sols calcaires ou argileux de Lorraine, sols acides de la moyenne montagne vosgienne, sols viticoles d'Alsace, sols du domaine karstique et tourbières acides des plateaux et des monts du Jura; 2) de l'influence des activités humaines sur les sols et les écosystèmes: sidérurgie, friches industrielles et réhabilitation des sols urbains; agriculture et protection de la qualité des eaux hydrothermales (exemple de Vittel); acidification des sols et dépérissement complexe des forêts; écosystèmes et pressions touristiques et économiques. Des sites prestigieux seront visités: des sites naturels: « hautes chaumes » des Vosges, forêts du Jura, plaine d'Alsace; des sites historiques et culturels: les Salines Royales d'Arc-et-Sénans, Strasbourg, Nancy, le site olympique de Vittel et le fameux vignoble d'Alsace.

Excursion A 2: Belgique - Nord du Bassin de Paris (France)

*** 6 jours, 7 nuits, du 12 août après-midi au 19 août matin**
*** Itinéraire: Bruxelles, Leuven, Gand, Calais, Lille, Laon, Reims, Paris (environ 1000 km).**

De Bruxelles à Reims, en passant par Lille et Laon, on découvrira les sols et les paysages des régions de craie, des couvertures sableuses et loessiques du Tertiaire et du Pléistocène du sud de la Belgique et du Nord de la France (marquées par les phénomènes périglaciaires), ainsi que les sables récents et la plaine holocène de la Flandre maritime. L'approche archéo-pédologique, ainsi que l'analyse de mesures de conservation du patrimoine pédologique, permettront de comprendre l'influence des activités humaines sur la pédogenèse. Une attention particulière sera portée à l'impact des activités humaines depuis le Néolithique (environ 7000 ans) sur l'évolution des sols: comparaison de sites forestiers à impact humain minimal et de sites profondément perturbés par des aménagements, notamment hydrauliques et agricoles. Les thèmes abordés concerneront notamment l'érosion, le drainage, l'impact du remembrement, des guerres, des loisirs sur des sols de types Rendzines, Glossisols, Alisols, Luvisols, Cambisols, Podzols (de lande ou de forêt), Plaggen, Anthrosols. La richesse culturelle des régions traversées permettra de visiter des villes historiques telles que Bruges, Gand, sans oublier des sites plus récents du Chemin des Dames, du Mur de l'Atlantique ou du Tunnel sous la Manche. Les traditions culturelles et les spécialités gastronomiques ne seront pas oubliées (brasserie, cave de Champagne).

Excursion A 3: Sud-Ouest de la France

* **5 jours, 5 nuits, du 14 août après-midi au 19 août après-midi**
* **Itinéraire: Bordeaux, Arcachon, Pau, Toulouse, Montauban, Carcassonne, Montpellier (environ 1300 km).**

Le circuit présentera successivement: les sols calcaires et les cailloutis du vignoble de Bordeaux, les formations dunaires de la côte atlantique et leurs aménagements, les sols sableux podzoliques sous monoculture irriguée de maïs des Landes de Gascogne, les sols isohumiques acides du piémont des Pyrénées et les conséquences de leur défrichement sur leur stock de carbone, les Luvisols hydromorphes des terrasses de la Garonne et les problèmes de drainage et de qualité des eaux, les sols argilo-calcaires des molasses aquitaniennes et leurs modifications par les activités agricoles. A travers la diversité des pédopaysages et des sols observés, les thèmes abordés seront: les relations sols/qualité des vins, la dynamique des intrants en irrigation fertilisante souterraine, le drainage agricole et la qualité des eaux, la gestion de la matière organique en culture intensive, l'érosion liée à la mécanisation dans les zones de forte pente. La richesse du patrimoine historique et culturel, ainsi que les traditions gastronomiques seront également présentées par la visite de sites prestigieux et des dégustations (dune du Pyla, vignobles de Bordeaux et d'Armagnac, château d'Henri IV à Pau, Capitole de Toulouse, citée médiévale de Carcassonne).

Excursion A 4: Tunisie

* **7 jours, 8 nuits, du 11 août soir au 19 août matin**
* **Itinéraire: Tunis, Kairouan, Kasserine, Tozeur, Douz, Gabès, Hammamet, Tunis (environ 1500 km).**

La tournée présentera des paysages, des sols et des aménagements bien typiques de la diversité des écosystèmes de la Tunisie, zone de transition climatique entre Méditerranée et Sahara. L'accent sera mis, en particulier, sur le fonctionnement des sols des milieux arides et subarides et sur leur utilisation sous cultures conduites en sec et en irrigué avec des eaux chargées en sels. Seront ainsi abordés: la récupération des sols très salés et l'étude de leur comportement physico-hydrique et géochimique; le fonctionnement et l'utilisation des sols à accumulation calcaire et gypseuse; les formes d'aménagement des sols de steppe ainsi que la lutte contre la désertification et la restauration des steppes dégradées. On insistera sur les particularités et l'originalité de fonctionnement de l'écosystème des oasis et sur la réhabilitation de la petite hydraulique et des systèmes de cultures traditionnels en aridoculture. Ces présentations seront aussi l'occasion de bien resituer le rôle des civilisations berbère, arabo-musulmane, romaine et occidentale dans l'acquisition de l'identité tunisienne.

13 - LES EXCURSIONS APRÈS LE CONGRÈS

Après le Congrès, **huit excursions,** de 4 à 9 jours auront lieu, en France, en Europe et en Afrique. Ces excursions seront à la fois scientifiques et touristiques.

Excursion B 1: Est viticole Français: Beaujolais, Bourgogne, Champagne

* **8 jours, 7 nuits, du 27 août après-midi au 3 septembre après-midi**

*** Itinéraire: Montpellier, Lyon, Macôn, Dijon, Beaune, Avallon, Troyes, Châlons-sur-Marne, Reims, Paris (environ 1600 km).**

Des abords de Lyon au coeur de la Champagne, ce circuit présentera les sols et les grands modes de mise en valeur de trois régions fortement contrastées. Le fil conducteur en sera, bien sûr, le vignoble dans toute sa diversité: pentes escarpées sur roches granitiques et volcaniques du Beaujolais; célèbres coteaux calcaires bourguignons de Beaune et de Nuit, aux crus réputés, ainsi que de Chablis plus au nord; Champagne au nom prestigieux. Mais ces régions recouvrent aussi bien d'autres aspects: forêts résineuses d'altitude en Haut-Beaujolais et vastes massifs forestiers feuillus en plaine de Saône et en Champagne Humide; prairies d'élevage du boeuf charolais en Auxois; grande culture céréalière des plateaux calcaires de Bourgogne et de Champagne sèche. En relation avec les principaux types de sols rencontrés (sols alluviaux, Leptosols, Cambisols, sols calcaires, Luvisols, Planosols), différents problèmes agro-environnementaux seront abordés: aménagement et gestion des sols; fertilité minérale et qualité des eaux; érosion; maîtrise des intrants (engrais, pesticides, polluants divers...); gestion de la biomasse; relations roche-sol-vin, qualité des productions vinicoles. Tout au long du parcours, on visitera des sites chargés d'histoire: hospices de Beaune, palais des Ducs de Bourgogne de Dijon, basilique de Vézelay, quartiers médiévaux d'Avallon et de Troyes, cathédrale de Reims; dégustations de vins dans des caves renommées.

Excursion B 2: Centre France, Val de Loire

*** 8 jours, 7 nuits, du 27 août après-midi au 3 septembre midi**
*** Itinéraire: Paris, Orléans, Chambord, Blois, Tours, Angers, Châtelleraut, Poitiers, Paris (environ 1400 km).**

En descendant la Loire: sols, châteaux, vignobles. L'accent sera mis sur la diversité des régions naturelles traversées, en suivant la Loire qui constitue un axe naturel, historique, culturel et économique des parties Sud du Bassin Parisien. On y étudiera: les sols limono-calcaires de Beauce; les sols acides, lessivés et hydromorphes des sables et argiles, domaine des forêts et des étangs; les sols de limons hydromorphes et battants sur argile à silex; les sols issus de calcaires et de craies glauconieuses des vignobles du Val de Loire; la bordure du socle armoricain; les sols calcaires et les terres rouges argileuses du Poitou. A partir d'exemples régionaux on abordera les thèmes suivants: impact de l'agriculture intensive et du drainage sur la qualité de l'eau; gestion des réserves en eau en agriculture intensive irriguée; fertilité physique naturelle des sols et gestion sylvicole; relations sols-terroirs viticoles-vins; aménagement des sols et activités de loisirs; sols et archéologie; cartographie pédologique effectuée en France. L'histoire et la culture régionales seront également abordées depuis la préhistoire (outillage acheuléen du Grand Pressigny), aux châteaux de la Renaissance (Sully, Blois, Chambord, Chenonceaux) et au Futuroscope de Poitiers. Les villes d'Orléans, Blois, Saumur et Angers seront visitées ainsi que les vignobles de Chinon et Saumur (dégustations).

Excursion B 3: Massif Armoricain (France), Devon, Cornwall (Grand Bretagne)

*** 8 jours, 7 nuits, du 27 août après-midi au 3 septembre après-midi**
*** Itinéraire: St Brieuc, St Malo, Mont St Michel, Fougères, Rennes, Ancenis, Guérande, Vannes, Quimper, Brest, Roscoff, Plymouth, Dartmoor, Penzance, Cap Lizard, Londres (environ 1400 km).**

De Saint Malo à Plymouth, en parcourant Bretagne, Devon et Cornwall, chercheurs et ingénieurs du développement feront découvrir des pédopaysages variés: massifs anciens de roches acides (schistes et granites de Bretagne, schistes carbonifères du Devon, granites du Dartmoor, serpentinites et loess du Cap Lizard), polders du Mont Saint Michel, zone alluviale du Torridge basin. Les thèmes abordés traiteront de l'impact de l'agriculture intensive (systèmes à base de maïs et d'herbe, horticulture), du rôle du ruissellement superficiel, du drainage et de l'aménagement du paysage sur les transferts de nitrates et de pesticides, de la détermination des chemins de l'eau à l'échelle du bassin versant et ses implications sur les eaux littorales. Le fonctionnement de sols forestiers et de sites d'intérêt écologique (polder du Mt St Michel, marais de Grande Brière, réserve « Natura 2000 » du Cap Lizard) seront aussi présentés. Les sols observés appartiennent aux groupes des Cambisols, Luvisols, Glossisols, Gleysols, Anthrosols et Histosols. Cette tournée scientifique donnera aussi l'occasion de visiter le site exceptionnel du Mont Saint Michel, de vieilles villes et châteaux, Fougères, Rennes, Quimper, Locronan, Saint Malo, Dartmoor, Exeter; les

paysages tourmentés de la côte de granite rose, les landes du Dartmoor, le Cap Lizard, et de goûter des spécialités régionales comme les galettes bretonnes et les fruits de mer.

Excursion B 4: Alpes, vallée du Rhône (France, Suisse)

* **8 jours, 7 nuits, du 27 août matin au 3 septembre après-midi**
* **Itinéraire: Montpellier, Valence, Grenoble, Aussois (Maurienne), Val d'Isère, Beaufort (Les Saisies), Martigny (Chamonix), Lausanne, Genève (environ 1300 km).**

Depuis la Méditerranée jusqu'aux plateaux suisses de bordures du lac Léman, la tournée traversera une grande partie des Alpes, via les plus hauts cols d'Europe, permettant de découvrir les panoramas prestigieux des massifs des Ecrins et du Mont Blanc, et aussi de faire connaissance avec les contrastes et la diversité de ces milieux. Dans les secteurs de piémont alpin, l'homme a progressivement transformé les zones de plaines pour mieux les exploiter et les mettre à son service (aménagements hydro-électriques, irrigation, voies de communication et transports d'énergie, etc.). Les apports fluvio-glaciaires sont conservés sur toute la période quaternaire; ces conditions sont favorables pour qu'on y étudie l'altération de ces matériaux en fonction de la durée d'évolution (2 millions d'années) et les systèmes de paléosols rouges associés. Seront aussi traitées les relations „sols - qualité des vins", sur les célèbres coteaux des Côtes du Rhône, ainsi que les problèmes liés à l'agriculture intensive et irriguée (pollution azotée, lagunage). Dans les zones de montagnes, beaucoup plus sensibles et fragiles, l'emprise de l'homme est heureusement plus discrète. Dans ces milieux, l'orientation des pédogenèses est un peu particulière et en relation avec les conditions écologiques très contrastées (Alpes sèches, Alpes internes, Alpes humides) et aussi avec les conditions locales stationnelles (nature de la roche, morphologie, cryoturbation, combe à neige, éboulis). Dans ces régions l'homme, pour se maintenir, a du adapter ses productions: forêt, herbage, alpage, et ses comportements: tourismes, piste de ski. Des spécialistes de ces thèmes présenteront les problèmes actuels et quelques solutions possibles devant les évolutions récentes: enfrichement, respect de l'environnement, recherche de qualité des produits de terroirs.

Excursion B 5: Maroc

* **5 jours, 6 nuits, du 27 août soir au 2 septembre matin**
* **Itinéraire: Marrakech, Beni Mellal, Fès, Rabat (environ 1300 km).**

Au Maroc, comme dans de nombreux pays à climat aride ou subaride, l'eau constitue un des principaux facteurs limitant pour la production agricole. L'irrigation des terres est la pièce maîtresse du développement agricole et rural. Aussi, dans une optique de développement durable, la conduite des irrigations exige un contrôle et un suivi combiné de la qualité des eaux et des sols. En effet sous ce type de climat, l'irrigation avec des eaux plus ou moins chargées en sels aboutit progressivement à une dégradation des sols et à une détérioration de leur qualité physique et de leur fertilité chimique (compactage, salinisation), surtout si les conditions de drainage et les possibilités d'évacuation des eaux ne sont pas parfaitement assurées. En traversant les plaines du Haouz, du Tadla et du Gharb, tous ces phénomènes seront étudiés en rapport avec la variété des sols rencontrés: sols des systèmes arides et salés, sols des milieux méditerranéens. Deux villes impériales ayant marqué l'histoire de l'Afrique du Nord (Marrakech et Fès) seront visitées. Au total, cette tournée pédologique permettra d'apprécier les efforts déployés par le Maroc en matière d'irrigation et de comprendre l'évolution de divers types de sols après 25 ans d'histoire culturale sous irrigation avec des eaux de qualité différente.

Excursion B 6: Sud-Ouest de l'Allemagne

* **4 jours, 5 nuits, du 27 août après-midi au 1 septembre matin**
* **Itinéraire: Mulhouse, Breisach, Schluchsee, Konstanz, Stuttgart (environ 600 km).**

Cette excursion propose de réaliser une présentation combinée des paysages et des sols en rapport avec l'étude des problèmes d'environnement observés dans cette partie Sud-Ouest de l'Allemagne. L'itinéraire traversera les paysages pittoresques de la plaine supérieure du Rhin, incluant le massif volcanique du Kaiserstuhl, les massifs montagneux de la Forêt Noire et du Hegau, pour arriver jusqu'au lac de Constance et aux collines subalpines du Allgäu et se terminer à Stuttgart. On étudiera les sols et leur organisation, dans les différents paysages traversés. La présentation sera réalisée selon le principe d'étude de chaîne de sols. Les thèmes abordés concerneront notamment les problè-

mes d'agriculture intensive, de dépérissement des forêts, de pollution des eaux et de l'atmosphère. Les aspects touristiques ne seront pas négligés: la tournée permettra de visiter les cités médiévales de Fribourg et Constance, ainsi que les églises romane et gothique de Brisach, de Fribourg et d'Ulm.

Excursion B 7: Afrique de l'Ouest (Bourkina Faso, Côte d'Ivoire)

*** 9 jours, 10 nuits, du 27 août soir au 6 septembre matin**
*** Itinéraire: Ouagadougou, Dori, Ouagadougou, Bobo Dioulasso, Korogho, Bouaké, Yamoussokro, Abidjan (environ 2000 km).**

Du Nord au Sud, des marges du Sahara au golfe de Guinée, l'excursion couvrira un large gradient pluviométrique (500 à 2000 mm/an), depuis la brousse tigrée et les steppes sahéliennes jusqu'à la forêt dense humide subéquatoriale, en passant par les savanes des climats contrastés intermédiaires. Le transect montrera les systèmes pédologiques caractéristiques de ces domaines. Il révélera l'influence des facteurs géologiques et géomorphologiques dans la différenciation des couvertures pédologiques: sols ferrugineux non lessivés, sols subarides et sols sodiques sur formation sableuse dunaire et sols de système endoréique au nord; cuirasses et sols ferrugineux lessivés sur granites, sols bruns eutrophes et glacis cuirassé liés aux roches basiques des savanes soudaniennes, au Centre; transition entre sols ferrallitiques et ferrugineux sur grès dans le Sud du Burkina Faso; sols ferrallitiques sur granites et schistes des zones de savane et de forêt, sols hydromorphes de vallée rizicole, sols peu évolués sur dépôts sableux côtiers, en Côte d'Ivoire. Toutes ces différenciations ont des conséquences importantes sur l'utilisation des terres: la tournée mettra en évidence la diversité des formes d'activités agricoles, pastorales et sylvicoles en fonction des contraintes et des potentialités des sols et du climat, activités aboutissant à des résultats très divers qui seront analysés. Enfin, l'excursion fera découvrir les richesses touristiques et culturelles des régions traversées avec présentations des chants et danses traditionnelles, visites de sites et curiosités locales et rencontres avec d'importantes personnalités coutumières africaines. Elle permettra de faire mieux connaissance avec la vie, les coutumes et les traditions des divers pays traversés.

Excursion B 8: Espagne, Catalogne

*** 7 jours, 6 nuits, du 27 août matin au 2 septembre après-midi**
*** Itinéraire: Montpellier, Lleida, Quinto de Ebro (Zaragoza), San Juan de Flumen (Huesca), Mollerussa, Girona, Villafranca, Barcelona (environ 2300 km).**

La tournée se propose de présenter les sols et l'utilisation des terres en sec ou en irrigué, dans la partie Nord-Est de l'Espagne, où le climat varie depuis l'aride jusqu'au méditerranéen subhumide. Dans la partie la plus aride (Vallée de l'Ebre), les traits majeurs de développement des sols sont l'existence d'horizons calciques ou gypseux plus ou moins indurés et les thèmes discutés seront les relations sols-paysages-morphologie, la cartographie des sols, l'utilisation des sols à horizon gypseux, l'adaptation de l'irrigation aux types de sols, les aménagements hydro-agricoles, l'irrigation avec les eaux chargées en sels, la restauration des sols très salés, le drainage par tuyaux enterrés. Sous climat méditerranéen, deux aspects bien différents seront abordés. En secteur viticole, très sensible à l'érosion, plusieurs problèmes seront étudiés, notamment ceux de: morphologie et érosion des sols, types de sols et qualité des vins, sol et conservation des eaux, pluviométrie et conservation des sols, intérêt des SIG pour l'étude de ces problèmes. Enfin, dans un autre secteur, une organisation des sols bien différente sera étudiée, et la discussion portera sur la difficulté de combiner les problèmes d'aménagement des eaux et ceux d'utilisation des déchets animaux. Les magnifiques paysages espagnols traversés seront commentés et des temps forts seront consacrés à la visite de places touristiques réputées.

14 - LES EXCURSIONS PENDANT LE CONGRÈS

Pendant la durée du Congrès, **cinq excursions,** d'une journée chacune, auront lieu dans la région de Montpellier. Ces excursions seront à la fois scientifiques et touristiques.

Excursion C1: La Camargue et le delta du Rhône: une réserve naturelle associée à une agriculture originale (riziculture irriguée, élevage des taureaux et ovins) et à une industrie salinière. Des activités concurrentes se côtoient et se concilient sur un espace restreint et fragile, avec un milieu naturel protégé pour sa flore et sa faune. Aperçu de différents sols. On visitera une manade camarguaise et une cave des vignobles des sables.

Excursion C2: **Les plaines languedociennes, exemple de l'Hérault:** la monoculture de la vigne et sa reconversion; maîtrise des rendements de la vigne et qualité des vins. La trufficulture: un exemple de reconversion possible. Aperçu de différents sols. On visitera les gorges de l'Hérault, l'Abbaye du 11ème siècle et le village de Saint Guilhem-le-Désert, la grotte de Clamouse, une cave coopérative viticole.

Excursion C3: **La moyenne vallée de l'Hérault et les contreforts de la Montagne Noire:** le fonctionnement hydrique de la vigne en plaine; visite d'un bassin versant hydrologique expérimental. Les relations terroirs - qualité des vins en zone de coteaux (les vignobles de Faugères - Saint Chinian). Les problèmes de pollution par les pesticides. Aperçu de différents sols. On visitera le cirque dolomitique de Mourèze, le Saint Chinianais, le Bassin du Salagou avec ses grès rouges du Permien, des chaos ruiniformes, des bad-lands.

Excursion C4: **Les hautes garrigues de l'Hérault:** moyenne montagne sèche méditerranéenne, zone de transition entre les Grandes Causses et les plaines viticoles littorales. On y voit la diversification des activités en complémentarité avec l'urbain (Montpellier). On observera des systèmes traditionnels (ovins - vignes) et des systèmes plus récents (sapins - lait, maraîchage). On verra la flore de la garrigue et les sols discontinus des zones karstiques. Aperçu de différents sols. On visitera les Causses avec ses grottes et cavernes (Demoiselle, Laroque), le chemin des Verriers à Couloubrines (16ème siècle), la cave viticole du Pic Saint Loup.

Excursion C5: **La plaine littorale languedocienne et le massif de la Clape:** l'histoire des étangs et des lagunes de bord de mer; le contraste entre le littoral et le massif karstique de bord de mer; les vignobles et leurs produits; la pollution des étangs; le lagunage; la truffe en zone de garrigue. Aperçu de différents sols. On visitera la cathédrale de Maguelone, le Mont Saint Clair à Sète, la ville d'Agde, le massif de la Clape dans les Corbières.

15 - LES COÛTS

* **Les droits d'inscription pour les participants** au Congrès, pour ceux qui s'inscriront et payeront avant le 31 décembre 1997, seront de l'ordre de:

- **membre de l'AISS: 2200 francs français** par personne (environ 440 $ US, au taux actuel du change).
- **non membre de l'AISS: 2700 francs français** par personne (environ 540 $ US, au taux actuel du change).

Pour ceux qui s'inscriront et payeront après le 31 décembre 1997, les droits d'inscription seront majorés de 20%. Un tarif réduit sera accordé aux étudiants. **Les auteurs de communications devront obligatoirement payer leurs droits d'inscription avant le 31 décembre 1997.**

* **Les droits d'inscription pour les personnes accompagnantes,** pour celles qui s'inscriront et payeront avant le 31 décembre 1997, seront de l'ordre de **350 francs français** par personne (environ 70 $ US, au taux actuel du change). Pour celles qui s'inscriront et payeront après le 31 décembre 1997, les droits d'inscription seront majorés de 20%.

* **La participation au dîner du Congrès,** pour les personnes qui s'inscriront et payeront avant le 31 décembre 1997, sera de l'ordre de **350 francs français** par personne (environ 70 $ US, au taux actuel du change). Pour celles qui s'inscriront et payeront après le 31 décembre 1997, le coût sera majoré de 20%.

* **La participation à une excursion d'une journée pendant le Congrès,** pour les personnes qui s'inscriront et payeront avant le 31 décembre 1997, sera de l'ordre de **500 francs français** par personne (environ 100 $ US, au taux actuel du change). Pour celles qui s'inscriront et payeront après le 31 décembre 1997, le coût sera majoré de 20%. **Seules les excursions ayant obtenu un nombre suffisant d'inscriptions payées avant le 31 décembre 1997 seront maintenues.**

* **La participation aux excursions qui auront lieu avant et après le Congrès,** variera d'une excursion à l'autre; les prix seront, à peu près, les suivants (en chambre double, tous les repas compris; acheminements, jusqu'au lieu de départ de l'excursion et à partir du lieu d'arrivée de l'excursion, non compris; les prix en dollars le sont au taux actuel du change):

A1 =	**5500 FF**	**(1100 $US)**	**B3 =**	**5600 FF**	**(1120 $US)**
A2 =	**4900 FF**	**(980 $US)**	**B4 =**	**5200 FF**	**(1040 $US)**
A3 =	**4200 FF**	**(840 $US)**	**B5 =**	**4500 FF**	**(900 $US)**
A4 =	**3500 FF**	**(700 $US)**	**B6 =**	**3700 FF**	**(740 $US)**
B1 =	**5300 FF**	**(1060 $US)**	**B7 =**	**7000 FF**	**(1400 $US)**
B2 =	**5400 FF**	**(1080 $US)**	**B8 =**	**4000 FF**	**(800 $US)**

Des tarifs de groupes seront proposés pour les acheminements.

Ces prix valent pour ceux qui s'inscriront et payeront avant le 31 décembre 1997; ils seront majorés de 20% pour ceux qui s'inscriront et payeront après le 31 décembre 1997. **Seules les excursions ayant obtenu un nombre suffisant d'inscriptions payées avant le 31 décembre 1997 seront maintenues.**

16 - INFORMATIONS ET INSCRIPTIONS

* A partir du 1er novembre 1995, les informations concernant le Congrès seront accessibles sur Internet sous interface WWW, à l'adresse suivante:

http://www.cirad.fr/isss.html

Les informations y seront régulièrement mises à jour.

*** Le bulletin d'intention de participation** au Congrès (voir ci-après) devra être envoyé au Secrétariat du Congrès avant le **1er avril 1996.** Ce bulletin d'intention de participation pourra être rempli et envoyé par Internet en utilisant la page réservée à cet effet sur le serveur Netscape cité ci-dessus.

Attention: seules les personnes ayant envoyé un bulletin d'intention de participation recevront directement, par courrier, la suite des informations concernant le Congrès.

* Le programme définitif du Congrès et les bulletins d'inscriptions seront diffusés à partir de juin 1996.

* Les inscriptions et les envois de communications pourront se faire par Internet en utilisant les pages réservées à cet effet sur le serveur Netscape cité ci-dessus.

* Les propositions de communications, sous la forme d'un résumé d'une page (2 500 signes maximum), devront être envoyées au Secrétariat du Congrès avant le **30 avril 1997.**

* Les résumés définitifs et les textes complets des communications acceptées par le Comité Scientifique du Congrès (7 pages ou 16 000 signes maximum) devront être envoyées au Secrétariat du Congrès avant le **31 décembre 1997.**

*** La date limite de réception des droits d'inscription et du paiement des excursions est fixée au 31 décembre 1997:**

- pour les auteurs de communications;
- pour les inscriptions sans majoration;
- pour le paiement sans majoration des excursions.

Les inscriptions au Congrès et aux excursions, pour ceux qui ne présentent pas de communications, seront possibles, en fonction des places disponibles, jusqu'au début du Congrès (les prix étant majorés de 20%).

17 - LES ORGANISATEURS DU CONGRÈS

Le 16ème Congrès Mondial de Science du Sol est organisé, conjointement, par l'AFES, Association Française pour l'Etude du Sol, et par l'AISS, Association Internationale de la Science du Sol.

Président du Comité d'Organisation:
Alain RUELLAN, Président de l'AISS

*

Vice-Président du Comité d'Organisation:
Marcel JAMAGNE, Président de l'AFES et Vice-Président de l'AISS

*

Président du Comité Scientifique:
Georges PÉDRO

*

Le 16ème Congrès Mondial de Science du Sol reçoit le patronage et l'appui financier de:

Ministère des Affaires Etrangères;
Ministère de l'Agriculture, de la Pêche et de l'Alimentation;
Ministère de la Coopération; Ministère de l'Environnement;
Secrétariat d'Etat à la Recherche;
Conseil Régional du Languedoc-Roussillon; Conseil Général de l'Hérault;
District de l'agglomération de Montpellier; Ville de Montpellier;
Agropolis; Cemagref; Cirad; Cnearc; Cnrs; Ensam; Inra; Orstom;
Acct; Commission Européenne; Fao; Icsu; Unesco.

Attention:

Seules les personnes ayant envoyé un bulletin d'intention de participation (voire la page suivante) recevront directement, par courrier, la suite des informations concernant le Congrès.

Montpellier (France)
20 au 26 août 1998

BULLETIN D'INTENTION DE PARTICIPATION

à renvoyer avant le **1er avril 1996** à:

16ème Congrès Mondial de Science du Sol
Agropolis • Avenue Agropolis • 34394 Montpellier Cedex 5 • France
Tél. (33) 67 04 75 38 • **Fax** (33) 67 04 75 49
E.mail: isss@agropolis.fr • **Serveur WWW:** http://www.cirad.fr/isss.html

Prof., Dr., Mr., Mme, Melle

....
Nom de famille **Prénoms**

Adresse postale: .....

.....

.....

Télephone: ..... **Fax:** .....

E.mail: ..... **Telex:** .....

Je suis membre de l'AISS: **oui** ☐ **non** ☐
Je compte participer au Congrès: **certain** ☐ **probable** ☐
Je compte être accompagné par ..... personnes
Je compte présenter une communication: ☐

thème de la communication:.....

.....

nom de la commission, sous-commission, groupe de travail ou comité permanent: .....

.....

Je compte participer à une ou plusieurs excursions (indiquer lesquelles):

• avant le Congrès: **A** ..... • après le Congrès: **B** ..... • pendant le Congrès: **C .....**

Ma préférence d'hôtel est (prix approximatifs 1995, pour une nuit; ces prix sont susceptibles de modifications):

	single	**double**
Hôtel 4 étoiles	☐ (450-500 francs)	☐ (500-550 francs)
Hôtel 3 étoiles	☐ (360-400 francs)	☐ (400-450 francs)
Hôtel 2 étoiles	☐ (200-300 francs)	☐ (300-350 francs)
Hôtel 1 étoile	☐ (150-250 francs)	☐ (200-300 francs)
Cité Universitaire Camping	☐	☐ (600 francs pour deux semaines)

Date..... **Signature** .....

16. BODENKUNDLICHER WELTKONGREß

MONTPELLIER (Frankreich)

20. - 26. August 1998

ZWEITE ANKÜNDIGUNG

Adresse des Kongreß-Sekretariats:

16ème Congrès Mondial de Science du Sol
Agropolis • Avenue Agropolis • 34394 Montpellier Cedex 5 • Frankreich
Tel. (33) 67 04 75 38 l Fax (33) 67 04 75 49
E-mail: isss@agropolis.fr
Server WWW: http://www.cirad.fr/isss.html

---

1 - MONTPELLIER UND UMGEBUNG

Der 16. Bodenkundliche Weltkongreß wird im Stadtzentrum von **Montpellier,** im Kongreßzentrum **„Le Corum",** Esplanade Charles de Gaulle stattfinden.

Montpellier ist die Hauptstadt der Region Languedoc-Roussillon (ein urbanes Zentrum mit ungefähr 350.000 Einwohnern), und liegt ungefähr 700 km südlich von Paris, nahe dem Mittelmeer. Montpellier ist leicht zu erreichen: mittels Flugzeug (9 Flüge täglich von Paris nach Montpellier, ca. 1 Std Flugzeit; zahlreiche Direktflüge von anderen Städten in Frankreich dem übrigen Europa), mit dem Zug (6 Zugverbindungen täglich zwischen Paris und Montpellier, mit dem TGV (Hochgeschwindigkeitszug mit einer Fahrzeit von 3:40 Std.); zahlreiche weitere Verbindungen mit anderen Städten in Frankreich oder im übrigen Europa; ausgezeichnete Straßenverbindungen, da Montpellier durch Autobahnen mit allen größeren Städten Frankreichs und des übrigen Europa verbunden ist. In Montpellier gibt es 2.500 Hotelzimmer (alle Kategorien), 400 Zimmer in Unterkünften der Universität und mehrere Zeltplätze in der Umgebung.

Die Geschichte der Stadt reicht über 1000 Jahre zurück. In Montpellier gibt es 3 Universitäten (einschließlich der ältesten Fakultäten für Medizin und Rechtswissenschaften in Europa, aus dem 12. bzw. 13. Jahrhundert); zahlreiche Forschungseinrichtungen und „Grandes Ecoles" (berufsspezifische Ausbildungsstätten mit Universitätsniveau); 60.000 Studenten und 7.000 Lehrkräfte und Forscher; technische und andere Einrichtungen, wie z.B. die „Euromedecine" (Forschung im medizinischen Bereich), „Agropolis" (Forschung im landwirtschaftlichen Bereich), „Heliopolis" (Forschung auf dem Gebiet des Fremdenverkehrs), „Antenna" (Forschung im Bereich neuer Medien und hochentwickelter Telekommunikation) und Datenverarbeitungskomplexe; zahlreiche Festivals (Musik, Tanz, Theater,...); Museen, etc. ... Montpellier ist sowohl eine historische als auch eine moderne Stadt. Überdies sind Montpellier und seine Umgebung reich an Touristenattraktionen: Sonne, Meer und Berge; Strände und Flüsse; Weinberge und Wein; Landwirtschaft und Weideland; Buschland und Wälder; römische Städte und romanische Kirchen; alte Städte und Dörfer mit engen Straßen; moderne und zukunftsweisende Städte; die Region hat einen klaren mediterranen Einschlag und liegt im Schnittpunkt zahlreicher Kulturen.

Schließlich befindet sich in Montpellier auch die „Agropolis", ein großes Forschungs- und Studienzentrum, spezialisiert auf das Gebiet der Landwirtschaft und der Nahrungsmittelproduktion mit spezifischer Ausrichtung auf mediterrane und tropische Gebiete. Agropolis hat ca. 20 verschiedene wissenschaftliche Einrichtungen mit rund 2000 Forschern und Lehrkräften. Es ist eines der größten wissenschaftlichen Zentren der Welt auf dem Gebiet der Landwirtschaft. Die Bodenkunde ist hier besonders gut vertreten., Sechs wissenschaftliche Institutionen haben bodenkundliche Forschungseinrichtungen in Montpellier: CIRAD, CNEARC, CNRS, ENSAM, INRA, ORSTOM.

Das Kongreßzentrum und Opernhaus von Montpellier, das „Le Corum", liegt im Zentrum der Stadt, mit zahlreichen Konferenzräumen und einer Gesamtfläche von ca. 66.000 m²; die Räume reichen von einem Plenarsaal für 2.000 Personen bis zu kleineren Sälen für 50 - 100 Personen und 4.500 m² Ausstellungsfläche. Das „Le Corum" liegt am Rande des „Ecusson", dem historischen Stadtviertel von

Montpellier, in der Nähe des „Place de la Comédie", dem Hauptplatz. Dort findet man herrliche Möglichkeiten für Spaziergänge, Erholung und auch für das leibliche Wohl ist gesorgt (mehrere hundert Cafés und Restaurants).

2. - KONGREßTHEMEN

*** Das Generalthema, das für den Kongreß ausgewählt wurde, lautet:**

„Derzeitige Funktionen weltweiter bodenkundlicher Systeme in Abhängigkeit unterschiedlicher Bodennutzungsformen durch die menschliche Gesellschaft"

*** Auf der Basis dieses Generalthemas werden 5 Unterthemen behandelt werden:**

1 - Was sind die direkten und indirekten Einflüsse menschlicher Gesellschaften auf pedogenetische Faktoren:

- welche menschlichen Tätigkeiten beeinflussen die Bodengenese und wie;
- welche pedogenetischen Faktoren werden davon betroffen.

2 - Welches sind die Konsequenzen menschlicher Aktivitäten auf Böden und auf die Bodenentwicklung:

- Auswirkungen auf die Bildung von Boden aus Gesteinsmaterial (Verwitterungsprozesse);
- Auswirkungen auf Bodeneigenschaften (Bodendynamik, Grenzflächen für Flüsse und Umwandlungsprozesse);
- Auswirkungen auf Erosion;
- Dies bezieht sich auf die Ausrichtungen und die Prozesse der Entwicklung der Transformationen von Böden.

3 - Was sind die Konsequenzen dieser Entwicklungen und Transformationen, einerseits auf die Bodenfunktionen und deren Wirkung, andererseits auf die menschlichen Aktivitäten selbst, soweit sie direkt oder indirekt mit derBodennutzung zusammenhängen:

- wie sind diese Entwicklungen und ihre Konsequenzen vorhersagbar, insbesondere im bezug auf große Risiken (Überflutungen Rutschungen und anderes);
- wie können hierbei sozioökonomische Dimensionen und Probleme der Qualität von Landnutzungsprodukten mitberücksichtigt werden.

4 - Welche Alternativen gibt es zu gefährlichen Entwicklungen: wie kann man sie vermeiden oder korrigierend eingreifen.

Die Alternativen müssen sowohl technischer als auch sozioökonomischer bzw. politischer Natur sein.

5. Welche grundsätzlichen Problemstellungen ergeben sich hieraus für wissenschaftliche Ansätze, Forschungsmethoden, wissenschaftliche Programme, sowie für die Aus- und Weiterbildung.

Wie können die Beziehungen zwischen bodenkundlichen Spezialisten und weiteren Teilen der Gesellschaft verbessert werden.

Bei allen diesen Themenstellungen muß folgendes beachtet werden:

- Grundlagenforschung, angewandte Forschung und die Anwendung der Forschungsergebnisse;
- die verschiedenen Organisationsebenen und Funktionsweisen von Bodenlandschaften;
- alle möglichen Beziehungen zwischen der menschlichen Gesellschaft und den Bodenlandschaften auf landwirtschaftlicher, forstlicher, industrieller, urbaner und anderer Ebene;
- die Entwicklung von Interdisziplinarität, einmal innerhalb der Bodenkunde und auch gegenüber den weiteren wissenschaftlichen Disziplinen (Geowissenschaften, Medizin, Chemie, Sozialwissenschaften, Technik etc.)

3 - PROGRAMMSTRUKTUR DES KONGRESSES

Der Kongreß wird folgende Programmstruktur aufweisen:

- 5 Generalvorträge

- 45 Symposien
- Posterausstellungen
- Arbeitssitzungen des IBG-Rates, des IBG-Exekutivkomitees, des IBG-Vorstandes, der Kommissionen, Unterkommissionen, Arbeitsgruppen und ständigen Komitees;
- wissenschaftliche und technische Ausstellungen;
- kulturelle und gesellschaftliche Veranstaltungen;
- wissenschaftliche und touristische Exkursionen in der Region von Montpellier;
- wissenschaftliche und touristische Exkursionen in Frankreich, im übrigen Europa und in Afrika: diese Exkursionen werden vor und nach dem Kongreß stattfinden.

4 - GENERELLER ABLAUF DES KONGRESSES

Der generelle Ablauf des Kongresses ist folgendermaßen geplant:

- 11. - 19. August: Exkursion A1, A2, A1, A4.
- Mittwoch, 19. August: Empfang der Teilnehmer und Registrierung im „Le Corum" von Montpellier.
- Donnerstag, 20. August: Eröffnung; generelle Vorträge; Abendempfang.
- Freitag, 21. und Samstag 22. August: Symposien und Posterausstellungen; Arbeitssitzungen; eintägige Exkursionen (C1 - C5).
- Sonntag, 23. August: Ruhetag; eintägige Exkursionen (C1 - C5).
- Montag, 24. und Dienstag, 25. August: Symposien und Posterausstellungen; Arbeitssitzugen; eintägige Exkursionen (C1 - C5)
- Mittwoch, 26. August: Symposien und Posterausstellungen; Arbeitssitzungen; Schlußveranstaltung.
- 27. August - 7. September: Exkursion B1, B2, B3, B4, B5, B6, B7, B8.

5 - KONGREß-SPRACHEN

Die Kongreß-Sprachen sind **Französisch, Englisch, Deutsch und Spanisch.**

Eine Simultanübersetzung in die vier Sprachen wird während des gesamten 20. August (Eröffnungssitzung und einführende Vorträge) zur Verfügung gestellt.

Eine Simultanübersetzung in Französisch und Englisch wird während aller Symposia erfolgen.

Die Zusammenfassungen und die Texte für Symposia und Poster können in einer der vier Kongreß-Sprachen abgefaßt sein. Alle Texte müssen jedoch mindestens über einen englischen und - wenn möglich - über einen französischen Titel verfügen.

6 - EINFÜHRENDE VORTRÄGE

Fünf einführende Vorträge werden am Donnerstag, den 20. August 1998 gehalten. Jeder dieser Vorträge wird von einer führenden Persönlichkeit der Wissenschaft gehalten und wird den derzeitigen Stand des Wissens im bezug auf die für den Kongreß ausgewählten Themenkreise darstellen.

7 - SYMPOSIA UND POSTERAUSSTELLUNGEN

45 Symposia werden am 21., 22., 23., 24., 25. und 26. August 1998 abgehalten. Während eines Halbtags werden 5 Symposia parallel abgehalten (mündliche Vorträge und Postersitzungen).

Die Themen für die Symposia werden vom Exekutivausschuß der IBG auf Vorschlag des wissenschaftlichen Kongreßkomitees ausgewählt. Die Auswahl erfolgt einerseits in bezug auf die für den Kongreß ausgewählten Themenbereiche, andererseits bezüglich der wissenschaftlichen Vorgaben durch die Kommissionen, Unterkommissionen, Arbeitsgruppen und ständigen Komitees der IBG.

Die nationalen Bodenkundlichen Gesellschaften werden ebenfalls miteinbezogen. **Das endgültige Programm für die Symposia wird im Juni 1996 veröffentlicht.**

Die Symposia und Posterausstellungen werden eng miteinander verknüpft sein: Jedes Symposium wird 3 Stunden für Vorträge und eine Postersitzung umfassen, welche sofort im Anschluß an die mündlichen Vorträge erfolgen wird. Die Verteilung der wissenschaftlichen Beiträge auf mündli-

che Vortragsveranstaltungen bzw. Postersitzungen wird durch das wissenschaftliche Kongreßkomitee und durch die Verantwortlichen für die Symposia entschieden.

Schriftliche Beiträge müssen in Form einer Zusammenfassung auf einer Seite (max. 2.500 Zeichen) vor dem **30. April 1997** direkt an das Kongreßsekretariat gesandt werden. Jeder Teilnehmer hat das Recht auf max. 2 Beiträge, davon muß einer in Zusammenarbeit mit anderen Autoren erfolgen. Jeder Teilnehmer kann nur einmal Erstautor eines Beitrags sein.

Die endgültigen Zusammenfassungen und die vollständigen Texte der durch das wissenschaftliche Kongreßkomitee angenommenen Mitteilungen müssen vor dem **31. Dezember 1997** an das Kongreß-Sekretariat gesandt werden. Die Zusammenfassungen bzw. die Originaltexte der Mitteilungen können in einer der vier Kongreßsprachen (Französisch, Englisch, Deutsch und Spanisch) geschrieben sein; jedoch müssen alle Mitteilungen zu zumindest einen englischen Titel haben und wenn möglich einen in französischer Sprache.

8 - KONGREßVERÖFFENTLICHUNGEN

Die Kongreßveröffentlichungen, die zu Beginn des Kongresses an jeden Teilnehmer ausgehändigt werden sollen, umfassen:

- einen Band mit Zusammenfassungen der fünf einführenden Konferenzvorträge und aller Konferenzbeiträge (mündliche und Posterbeiträge);
- eine CD-ROM mit Zusammenfassungen und vollständigen Texten der fünf einführenden Konferenzvorträge und aller mündlichen und Poster-Mitteilungen. Die Länge des Textes jeder Mitteilung darf sieben Seiten (16.000 Zeichen) nicht überschreiten;
- Das detaillierte Kongreßprogramm.

Während des Kongresses wird ein Publikationsdienst ausgewählte Texte der Vorträge und Kommunikationen als Ausdruck oder auf Diskette (PC und Mac) anbieten.

Wissenschaftlichen Zeitschriften wurden kontaktiert, um ihnen die Möglichkeit zu bieten, bestimmte Symposia oder Teile daraus, auf eigene Verantwortung zu publizieren.

9 - ARBEITSSITZUNGEN

Für den Rat der IBG, für das Exekutivkomitee, den Vorstand, die Kommissionen, Unterkommissionen, Arbeitsgruppen und die ständigen Komitees der IBG werden entsprechende Räume zu entsprechenden Zeiten zur Verfügung gestellt, um die nötigen Arbeitssitzungen abzuhalten.

10 - AUSSTELLUNGEN

Während der gesamten Kongreßdauer wird es wissenschaftliche und technische Ausstellungen für die Kongreßteilnehmer, und in einigen Fällen auch für ein allgemeines Publikum geben. Die Aussteller werden wissenschaftliche und technische Institutionen ebenso wie industrielle und kommerzielle Unternehmen sein. Alle Länder sind eingeladen, Ausstellungen zu veranstalten.

11 - KULTURELLE UND GESELLSCHAFTLICHE VERANSTALTUNGEN

Während der gesamten Kongreßdauer wird es mehrere kulturelle und gesellschaftliche Veranstaltungen geben, insbesondere:

- Donnerstag, 20. August, von 19.00 h - 24.00 h: **Empfang der Kongreßteilnehmer**, veranstaltet vom Organisationskomitee.
- Dienstag, 25. August, 19.00 h - 24.00 h: **offizielles Abendessen des Kongresses,** an einem besonders interessanten Ort in der Region von Montpellier.
- Musik- und Theaterveranstaltungen;
- Besichtigungen der Stadt und der Region Montpellier;
- Besichtigung wissenschaftlicher und kultureller Institutionen.

12 - VORKONGREß-EXKURSIONEN

Vor dem Kongreß werden vier Exkursionen von 5 - 7 Tagen Dauer in Frankreich, im übrigen Europa und in Afrika durchgeführt. Diese Exkursionen sind sowohl von wissenschaftlichem als auch von touristischem Interesse.

Exkursion A1: **Nordosten Frankreichs (einschließlich Deutschland und die Schweiz)**

* **6 Tage, 7 Nächte, vom Nachmittag des 12. bis zum Morgen des19.August**
* **Reiseroute:Nancy,Vittel,Metz,Saarbrücken(Deutschland),Straßburg, Colmar, Besançon, Pontarlier, Lausanne (Schweiz) (ungefähr 1.200 km).**

Die Verschiedenheit der unterschiedlichen Regionen und der Einfluß menschlicher Aktivitäten auf Böden und Ökosysteme wird im Mittelpunkt stehen. Besondere Schwerpunkte: 1) die Böden der verschiedenen Landschaften: Böden auf Kalkstein und auf Tongesteinen in Lothringen; saure Böden der Gebirgslandschaft der Vogesen, Weinbergsböden im Elsaß, Böden der Karstregion und saurer Moorlandschaften der Höhenrücken des Jura; 2) Einfluß menschlicher Bewirtschaftung auf die Böden und die Ökosysteme: Stahlindustrie, verlassene Industrieräume und Wiederherstellung urbaner Böden; Landwirtschaft und Schutz hydrothermaler Wässer (Beispiel Vittel); Bodenversauerung und Waldsterben; Ökosysteme und touristische und ökonomische Einflüsse. Berühmte Orte werden besichtigt: Naturdenkmäler, wie the „Hautes Chaumes" in den Vogesen, Wälder des Jura, die Ebene des Elsaß, historische und kulturelle Stätten: die königlichen Salinen von Arc-et-Sénans, Straßburg, Nancy, die Olympischen Anlagen von Vittel und die berühmten Weinberge des Elsaß.

Exkursion A2: **Belgien - nördliches Pariser Becken (Frankreich)**

* **6 Tage, 7 Nächte, vom Nachmittag des 12. bis zum Morgen des19.August**
* **Reiseroute: Brüssel, Leuven, Gent, Calais, Lille, Laon, Reims, Paris (ca. 1000 km.)**

Von Brüssel bis Reims, über Lille und Laon werden Böden und Landschaften der Kreideregionen, der Deckschichten des Tertiär und des Pleistozän aus Sand und Löß im Süden Belgiens und im Norden Frankreichs besichtigt, die durch periglaziale Prozesse überprägt sind. Darüber hinaus werden die rezenten Sande und die holozänen Verebnungen des meerbeeinflußten Flandern besichtigt. Mittels archäologisch-paläopedologischer Ansprache ebenso wie durch die Analyse von bodenkonservierenden Maßnahmen wird der Einfluß der menschlichen Tätigkeit auf die Bodenbildung aufgezeigt. Besondere Aufmerksamkeit wird menschlichen Einflüssen seit dem Neolithikum (ca. 7.000 Jahre) auf die Bodenentwicklung gewidmet sein: Vergleich forstlicher Standorte mit einem minimalen menschlichen Einfluß und solche, die durch hydraulische und landwirtschaftliche Kulturmaßnahmen tiefgreifend verändert wurden. Die hier angesprochenen Themenbereiche betreffen vor allem Erosion, Drainage, Einfluß der Umsetzung von Bodenmaterial durch kriegerische Maßnahmen sowie durch Maßnahmen zur Freizeitgestaltung, auf Rendzinen, Glossisols, Alisols, Luvisols, Cambisols, Podzole (unter Heide oder unter Wald), Plaggenböden und Anthrosole. Der kulturelle Reichtum der durchquerten Regionen erlaubt die Besichtigung zahlreicher historischer Stätten wie z.B. Brügge und Gent und nicht zu vergessen neuere Bauwerke, wie den Chemin des Dames, den Atlantikwall oder den Kanaltunnel. Kulturelle und gastronomische Traditionen und Spezialitäten werden ebenfalls nicht vergessen, wie z.B. Brauerei, Champagnerkellerei.

Exkursion A3: **Südwest-Frankreich**

* **5 Tage, 5 Nächte, vom Nachmittag des 14.bis zumNachmittag des19.August**
* **Reiseroute: Bordeaux, Arcachon, Pau, Toulouse, Montauban, Carcassonne, Montpellier (ca. 1.300 km)**

Auf dieser Route wird folgendes gezeigt: Böden auf Kalkstein und auf Kalkschutt der Weingärten von Bordeaux, die Ausbildung von Dünen an der Atlantikküste und ihre Bewirtschaftung, podzolige Sandböden unter Bewässerungsmonokultur von Mais in den „Landes" der Gascogne, humusreiche saure Böden der Fußflächen der Pyrenäen und die Auswirkungen der landwirtschaftlichen Kulturnahme auf ihren Kohlenstoffgehalt, hydromorphe Luvisole der Terrassen des Garonneflusses und Probleme der Drainage und der Wasserqualität, schwere kalkhaltige Böden der aquitänen Molasse und ihre Veränderungen durch landwirtschaftliche Maßnahmen. Bei der Durchquerung der verschiedenen Bodenlandschaften und Böden werden folgende Themen angesprochen: Verhältnis von Boden und Weinqualität, die Dynamik der Bewässerungswirtschaft und subterrane Eutrophierung, landwirtschaftliche Drainage und Wasserqualität, die Bewirtschaftung organischer Substanz unter intensiver landwirtschaftlicher Kultur, Erosionsprobleme in Verbindung mit der Mechanisierung von Hangflächen. Darüber hinaus werden historische und kulturelle Zeitzeugen ebenso wie gastronomische Tra-

ditionen präsentiert, berühmte Orte werden besichtigt und Wein wird verkostet (Düne von Pyla und Weingärten von Bordeaux und Armagnac, das Schloß von Heinrich IV in Pau, das Kapitol von Toulouse, die mittelalterliche Stadt von Carcassonne).

Exkursion A4: **Tunesien**

* **7 Tage, 8 Nächte, vom Abend des 11. bis zum Morgen des 19. August**
* **Reiseroute: Tunis, Kairouan, Kasserine, Tozeur, Douz, Gabès, Hammamet, Tunis (ca. 1.500 km)**

Die Reise wird verschiedene Landschaften, Böden und typische Flächenbewirtschaftungen der unterschiedlichen Ökosysteme Tunesiens in der klimatischen Übergangszone zwischen Mittelmeerraum und Sahara zeigen. Ein besonderer Akzent wird auf die Bodenfunktionen unter ariden und subariden Bedingungen und deren Nutzung durch Trockenkulturen und Bewässerungsfeldbau mittels salzhaltigen Wässern gelegt werden. Darüber hinaus werden ebenfalls die Sanierung von versalzten Böden und deren Studium im physiko-hydrischer und geochemischer Hinsicht gezeigt werden, ebenso die Funktionsweise und die Nutzung von Böden mit Kalk und Gipsakkumulation. Außerdem werden Bewirtschaftungsformen von Steppenböden und der Kampf gegen die Desertifikation sowie die Wiederherstellung degradierter Steppen gezeigt. Es ist auch beabsichtigt, auf die Besonderheiten und das Funktionieren von Oasenökosystemen und ihre Wiederherstellung durch kleinere hydraulische Maßnahmen sowie auf traditionelle Nutzungssysteme im Trockenfeldbau näher einzugehen. Diese Besichtigungen werden Möglichkeiten bieten, die Rolle der verschiedenen Kulturkreise von Berbern, arabisch-moslemischen, römischen und westlichen Zivilisationen in der Entwicklung der tunesischen Identität zu betrachten.

13 - NACHKONGREß-EXKURSIONEN

Nach dem Kongreß werden **acht Exkursionen** von 4 - 9 Tagen in Frankreich, im übrigen Europa und in Afrika stattfinden. Diese Exkursionen werden sowohl wissenschaftlichen als auch touristischen Inhalt haben.

Exkursion B1: **östliche Weinbaugebiete Frankreichs: Beaujolais, Bourgogne, Champagne**

* **8 Tage, 7 Nächte, vom Nachmittag des 27. August bis zum Nachmittag des 3. September**
* **Reiseroute: Montpellier, Lyon, Mâcon, Dijon, Beaune, Avallon, Troyes, Chälon-sur-Marne, Reims, Paris (ca. 1.600 km)**

Von der Region um Lyon bis ins Herz der Champagne wird diese Reise Böden und in großen Linien die Nutzungsmöglichkeiten dreier stark unterschiedlicher Regionen zeigen. Der Leitfaden dieser Exkursion wird selbstverständlich der Weinbau in seiner gesamten Breite sein: ausgeprägte Hänge auf granitischen und vulkanischen Ausgangsgesteinen des Beaujolais; die berühmten Bourguignon-Kalksteinhänge von Beaune und Nuit mit ihren neuen Weinberganlagen, wie auch Chablis und weiter im Norden die berühmte Gegend von Champagne. Diese Regionen zeigen jedoch auch andere wichtige Aspekte. Nadelwälder der Hochlagen von Beaujolais und große Laubwälder in den Ebenen der Saône und in der feuchten Champagne; die großen Weiden in denen das Charolais-Fleisch der Ochsen in Auxois produziert wird, die großen Getreidekulturen auf den Kalkplateaus von Bourgogne und der trockenen Champagne. Im Rahmen der Vorstellung der wichtigsten Bodentypen, wie alluviale Böden, Leptosole, Cambisole, Kalkböden, Luvisole und Planosole, werden verschiedene Probleme der Landwirtschaft und Umwelt angesprochen: die Bewirtschaftung von Böden, die Düngung und Wasserqualität, Erosion, die Verhinderung von Eintrag ins Grundwasser bei Düngung, Anwendung von Pestiziden und anderen verschmutzenden Stoffgruppen, die Bewirtschaftung von Biomasse, die Beziehung zwischen Ausgangsgestein, Boden und Wein sowie die Qualität der verschiedenen Weinarten. Im Verlaufe der Exkursion werden auch wichtige historische Stätten besucht werden, wie das Hospiz in Beaune, das Fürstenpalais von Bourgogne in Dijon, die Basilika von Vézelay, die mittelalterlichen Stadtteile von Avallon und Troyes, die Kathedrale von Reims. Außerdem werden Weinverkostungen in berühmten Weinkellern ermöglicht.

Exkursion B2: **Mittelfrankreich, Loiretal**

* **8 Tage, 7 Nächte, vom Nachmittag des 27. August bis zum Mittag des 3. September.**

*** Reiseroute: Paris, Orléans, Chambord, Blois, Tours, Angers, Châtelleraut, Poitiers, Paris (ca. 1.400 km)**

Im Loiretal werden Böden, Schlösser und Weinberge gezeigt. Das Schwergewicht wird auf der Verschiedenheit der durchquerten natürlichen Regionen entlang der Loire liegen, die eine natürliche, historische, kulturelle und ökonomische Achse vom Süden bis zum Pariser Becken bildet. Es werden insbesondere die schluffig-kalkhaltigen Böden von Beauce, die sauren, lessivierten und hydromorphen Böden auf Sand und Tongesteinen, mit Wäldern und Teichen gezeigt, die schluffigen, hydromorphen und teilweise verdichteten Böden auf quarzhaltigen Tongesteinen. Darüber hinaus werden Böden auf Kalkstein, auf glaukonithaltigen Kreideformationen von Weinbergen im Loiretal gezeigt, die Grenze zum armorikanischen Sockel, die kalkhaltigen Böden und Roterden mit hohem Tongehalt von Poitou. Im Rahmen dieser regionalen Beispiele werden folgende Themen behandelt: der Einfluß der intensiven Landwirtschaft und der Drainage auf die Wasserqualität; die Bewirtschaftung von Wasservorkommen in der intensiven Bewässerungslandwirtschaft, die natürlichen physikalischen Grundlagen der Bodenfruchtbarkeit und der Waldbewirtschaftung, die Beziehung zwischen Bodenanbaufläche, Weinberganlagen und Weinqualität; die Bewirtschaftung von Böden für Freizeitaktivitäten; Böden und archäologische Fragestellungen sowie die bodenkundliche Kartierung in Frankreich. Geschichte und regionale Kulturzentren werden ebenfalls von der Frühgeschichte (acheulische Werkzeuge des Grand Pressigny), über die Renaissanceschlösser (Sully, Blois, Chambord, Chenonceaux) bis zum „Futuroscope" von Poitiers miteinbezogen; außerdem die Städte Orléans, Blois, Saumur und Angers sowie die Weinberge von Chinon und Saumur (Weinverkostung).

Exkursion B3: **Armorikanisches Massiv (Frankreich), Devon, Cornwall (Großbritannien)**

*** 8 Tage, 7 Nächte, vom Nachmittag des 27. August bis zum Nachmittag des 3. September.**
Reiseroute: St Brieuc, St Malo, Mont St Michel, Fougères, Rennes, Ancenis, Guérande, Vannes, Quimper, Brest, Roscoff, Plymouth, Dartmoor, Penzance, Lizard Point, London (ca. 1.400 km).

Von St. Malo bis Plymouth, durch die Bretagne, Devon und Cornwall werden Wissenschaftler und Entwicklungsingenieure die verschiedenen Bodenlandschaften im einzelnen beschreiben: alte Massive mit sauren Ausgangsgesteinen (Schiefer und Granite der Bretagne, kohlehaltige Schiefer des Devon, Granite von Dartmoor, Serpentinite und Löß des Lizard Point), die Polderflächen des Mont Saint Michel, alluviale Zonen des Torridgebeckens u.a. Die hierbei angesprochenen Themen werden den Einfluß der Intensivlandwirtschaft (Systeme auf der Basis von Mais, Gras und Gemüseanbau), die Rolle oberflächlichen Wasserabflusses, der Drainage und der Landschaftsbewirtschaftung auf die Verbreitung von Nitraten und Pestiziden, die Untersuchung der Wasserwege im Maßstab eines Wassereinzugsgebietes und ihre Einflüsse auf die litoralen Wässer beinhalten. Die Funktionsweise forstlicher Böden und Standorte von besonderem ökologischen Interesse, wie die Polder von Mont Saint Michel, die Marschflächen von Grande Brière, das Landschaftsschutzgebiet „Natura 2000" von Lizard Point werden ebenfalls gezeigt werden. Die Böden gehören zur Gruppe der Cambisole, Luvisole, Glossisole, Gleysole, Anthrosole und Histosole. Diese wissenschaftliche Exkursion wird auch Möglichkeiten bieten, besondere Sehenswürdigkeiten wie den Mont Saint Michel, alte Städte und Schlösser wie Fougères, Rennes, Quimper, Locronan, Saint Malo, Dartmoor, Exeter zu besichtigen, aber auch akzentuierte Landschaften der Küste mit rosarotem Granit, die Moorlandschaft von Dartmoor und Lizard Point, wobei auch regionale Spezialitäten verkostet werden, wie die bretonischen Crêpes und Meeresfrüchte.

Exkursion B4: **Alpen, Rhônetal (Frankreich, Schweiz)**

*** 8 Tage, 7 Nächte, vom Morgen des 27. August bis zum Nachmittag des 3. September**

*** Reiseroute: Montpellier, Valence, Grenoble, Aussois (Maurienne), Val d'Isère, Beaufort (Les Saisies), Martigny (Chamonix), Lausanne, Genf (ca. 1.300 km)**

Vom Mittelmeer bis zu den Schweizer Hochflächen entlang des Genfer Sees wird die Exkursion einen großen Teil der Alpen durchqueren, z.T. über die höchsten Pässe Europas, was den Teilnehmern die Möglichkeit bietet, die großartigen Landschaften des Massivs von Ecrin und des Mont Blanc zu besichtigen und darüber hinaus die Kontraste und die Diversität dieser verschiedenen Räume zu

betrachten. Auf den alpinen Fußflächen hat der Mensch die ebenen Flächen zunehmend verändert, um sie besser zu seinen eigenen Zwecken nutzen zu können, wie z.B. durch hydroelektrische Anlagen, Bewässerung, Kommunikationsverbindungen, Energietransportwege etc. Da die gesamten fluvioglazialen Sedimentationsphasen über die Gesamtzeit des Quartär gut erhalten sind, bilden sie eine hervorragende Grundlage für das Studium der Verwitterung und der dabei entstehenden Materialien in Abhängigkeit von der Entwicklungsdauer (ca. 2.000 Jahre) sowie die Systeme der roten Paleosole, die hier eingeschlossen sind. Darüber hinaus wird auch die Beziehung zwischen Böden und Weinqualität auf den berühmten Anbauflächen der Côtes du Rhône diskutiert, sowie die Probleme der intensiven Bewässerungslandwirtschaft (Stickstoffeintrag ins Grundwasser, Wasserüberstau) besprochen. In den Bergregionen, die sehr viel zerbrechlicher und sensibler sind, war der Einfluß des Menschen glücklicherweise weniger intensiv. In diesem Milieu hat eine Bodenbildung besonderer Art entsprechend den speziellen, sehr kontrastreichen ökologischen Bedingungen stattgefunden, wie im Trockengebiet der Alpen, in den inneren Alpen und in den humiden Alpen. Diese Bedingungen wurden noch durch spezielle lokale Bedingungen, wie z.B. die Art des Ausgangsgesteines, die Morphologie, kryoturbate Veränderungen, Schneedruck oder Überschüttung variiert. In diesen Regionen mußte sich der Mensch, um zu überleben, mit seiner Produktion entsprechend anpassen: Waldwirtschaft, Weide und Almwirtschaft und ihre heutige Nutzung durch Tourismus und Schipisten. Experten für diese Themen werden die aktuellen Probleme darstellen und mögliche Lösungsansätze vor dem Hintergrund jüngster Entwicklungen aufzeigen: Wiederaufforstung, Beachtung umweltrelevanter Gesetzmäßigkeiten, Forschung über die Qualität lokaler Produkte.

Exkursion B5: **Marokko**

* **5 Tage, 6 Nächte, vom Abend des 27. August bis zum Morgen des 2. September**
* **Marrakesch, Beni Mallal, Fez, Rabat (ca. 1.300 km)**

In Marokko, wie in zahlreichen anderen Länder mit aridem oder semi-aridem Klima bildet das Wasser den limitierenden Faktor für die landwirtschaftliche Produktion. Die Bewässerung der Böden ist die zentrale Fragestellung für die ländliche und landwirtschaftliche Entwicklung. Darüber hinaus erfordert die Bewässerungswirtschaft eine ausgesprochene Kontrolle und Überwachung sowohl der Wasserqualität wie auch der Böden, vor allem unter dem Blickwinkel einer langfristigen und nachhaltigen Entwicklung. Tatsächlich hat in diesem Klimabereich die Bewässerung mit mehr oder weniger salzhaltigem Wasser nach und nach zu einer Bodendegradation und zu einer Verschlechterung der physikalischen und chemischen Bodeneigenschaften geführt (Verdichtung, Versalzung), insbesondere dort, wo die Drainagebedingungen und die Möglichkeit, salzhaltige Wässer abzuführen nicht vollständig gesichert werden konnten. Beim Durchqueren der Ebenen von Haouz, Tadla und Gharb können alle diese Phänomene neben der großen Variation der dort vorhandenen Böden studiert werden. Hierbei werden vor allem Böden der Trockengebiete z.T. mit Salzgehalt sowie Böden des mediterranen Milieus gezeigt. Zwei imperiale Städte, die die Geschichte des nordafrikanischen Raumes mitgeprägt haben (Marrakesch und Fez) werden besichtigt. Insgesamt wird diese bodenkundliche Exkursion einen Einblick in die großen Anstrengungen Marokkos bezüglich Bewässerungswirtschaft und Entwicklung verschiedener Bodennutzungen auf der Basis einer 25jährigen Geschichte der Bewässerungskultur mit unterschiedlichsten Wasserqualitäten ermöglichen.

Exkursion B6: **Südwestdeutschland**

* ***4 Tage, 5 Nächte, vom Nachmittag des 27. August bis zum Morgen des 1. September***
* **Reiseroute: Mühlhausen, Breisach, Schluchsee, Konstanz, Stuttgart (ca. 600 km)**

Diese Exkursion verbindet die Vorstellung verschiedener Landschaften und Böden und das Studium von Umweltproblemen, die in diesem Teil Südwestdeutschlands vorhanden sind. Die Reiseroute wird malerische Landschaften im Oberen Rheintal, einschließlich des Vulkanmassivs des Kaiserstuhls berühren, in die Gebirgsmassive des Schwarzwaldes und des Hegaus führen, um schließlich über den Bodensee und die subalpinen Hügellandschaften des Allgäu in Stuttgart zu enden. Während der Exkursion werden Böden und ihr Aufbau in den verschiedenen durchquerten Landschaften gezeigt. Die Darstellung wird nach Bodenabfolgen durchgeführt, wobei die dabei angesprochenen Themen die Intensivlandwirtschaft, das Waldsterben und Belastungen von Wasser und Atmosphäre be-

inhalten. Außerdem werden touristische Aspekte nicht vergessen, wie z.B. eine Besichtigung der mittelalterlichen Städte Freiburg und Konstanz, sowie der Besuch romanischer und gotischer Kirchen in Breisach, Freiburg und Ulm.

Exkursion B7: Westafrika (Burkina Faso, Elfenbeinküste)

* **9 Tage, 10 Nächte, vom Abend des 27. August bis zum Morgen des 6. September**
* **Reiseroute: Ouagadougou, Dori, Ouagadougou, Bobo Dioulasso, Korogho, Bouaké, Yamoussokro, Abidjan (ca. 2.000 km).**

Von Nord nach Süd, von den Ufern der Sahara bis zum Golf von Guinea wird diese Exkursion einen Niederschlagsgradienten von 500 bis 2.000 mm pro Jahr umfassen und dabei von der „Tigersavanne" und den Steppen des Sahel bis zum dichten, äquatorialen Tropenwald führen, wobei auch die Übergangssavannen miteingeschlossen werden. Dieser Querschnitt wird charakteristische Böden in diesen Landschaften aufzeigen. Es wird dabei vor allem der Einfluß der Faktoren Geologie und Geomorphologie auf die Ausbildung der verschiedenen Bodendecken aufgezeigt: nicht lessivierte, stark verwitterte Böden, Böden der Trockengebiete, sowie Salzböden auf sandigen Dünen und Böden der Übergangszonen zur Sahara im Norden; es werden lateritische Verfestigungen und lessivierte Ferralsole auf Graniten, braune eutrophe Böden auf Unterhängen von basischen Gesteinsmassiven der sahelischen Savanne gezeigt. Außerdem werden die Übergänge zwischen ferralitischen und fersiallitischen Böden auf Sandsteinen im Süden von Burkina Faso demonstriert. Ferralitische Böden auf Graniten und Schiefern der Savannen- und Waldzone, hydromorphe Böden, Böden mit Reiskulturen und wenig entwickelte Böden auf Küstensanden der Elfenbeinküste werden ebenfalls gezeigt.

Alle diese Verschiedenheiten haben wichtige Auswirkungen auf die Bodennutzung: Die Exkursion wird die Diversität der verschiedenen ackerbaulichen, weidewirtschaftlichen und forstwirtschaftlichen Nutzungssysteme in Abhängigkeit von den Problemen und dabei die bodenkundlichen und klimatischen Spielräume aufzeigen, wobei auch die daraus resultierenden, außerordentlich unterschiedlichen Ergebnisse analysiert werden. Schließlich wird die Exkursion den Teilnehmern auch die trouristischen und kulturellen Schönheiten der verschiedenen durchquerten Regionen, traditionelle Lieder und Tänze und besondere lokale Sehenswürdigkeiten bieten und ein Zusammentreffen mit wichtigen Repräsentanten afrikanischer Stämme ermöglichen. Die Exkursion wird einen tiefen Einblick in das Leben, die Bräuche und Traditionen der verschiedenen durchquerten Länder ermöglichen.

Exkursion B8: Spanien, Katalonien

* **7 Tage, 6 Nächte, vom Morgen des 27. August bis zum Nachmittag des 2. September**
* **Reiseroute: Montpellier, Lleida, Quinto de Ebro (Zaragoza), San Juan de Flumen (Huesca), Mollerussa, Girona, Villafranca, Barcelona (ca. 2.300 km)**

Die Exkursion wird die Böden und deren Nutzungen, vom Trockenfeldbau bis zur Bewässerungswirtschaft in Nordost-Spanien aufzeigen, unter klimatischen Bedingungen, die von arid bis zu mediterran-subhumid reichen. In der trockensten Region (Tal des Ebro) sind die hauptsächlichsten Entwicklungskennzeichen der Böden kalkige oder gipshaltige Horizonteinschaltungen, die mehr oder weniger verhärtet sind und die dort diskutierten Themen werden vor allem die Beziehung zwischen Böden, Landschaften und Morphologie, die Bodenkartographie sowie die Nutzung der Böden mit gipshaltigen Horizonten, die Anpassung der Bewässerungswirtschaft an die verschiedenen Bodentypen, die Bewirtschaftungssysteme im Bewässerungsfeldbau, die Bewässerungstechniken mit salzhaltigen Wässern, die Sanierung salzhaltiger Böden und die Bodendrainage mittels im Untergrund verlegten Rohrsystemen zeigen. Im Rahmen der mediterranen Klimabedingungen werden zwei sehr verschiedene Aspekte angesprochen: Im Weinbausektor, der sehr sensibel auf Erosion reagiert, werden verschiedene Probleme studiert, insbesondere die Morphologie und Erosion von Böden, Bodentypen und Weinqualität, Boden und Wasserkonservierung, Niederschlagsbedingungen und Bodenerhaltung, Bedeutung der geographischen Informationssysteme für das Studium dieser Probleme. Schließlich wird in einem anderen Bereich eine außerordentlich unterschiedliche Bodenproblematik angesprochen, und die Diskussion wird auf Schwierigkeiten hinweisen, die aus der Wasserbewirtschaftung einerseits und der Nutzung von tierischen Abfällen andererseits herrühren. Dabei werden herrliche Landschaften Spaniens durchquert und außerdem zahlreiche berühmte touristische Stätten besichtigt.

14 - EXKURSIONEN WÄHREND DES KONGRESSES

Während des Kongresses werden **fünf eintägige Exkursionen** in der Region von Montpellier durchgeführt. Diese Exkursionen sind sowohl wissenschaftlich als auch touristisch ausgerichtet.

Exkursion C1: Die Camargue und das Rhonedelta: Ein Naturreservat mit spezieller Landwirtschaft (Bewässerungsreisbau, Stier- und Schafzucht) und Salzgewinnung. Die gleichzeitig konkurrierenden und sich ergänzenden Nutzungsformen sind auf begrenzte Räume beschränkt, wobei die natürliche Umgebung mit ihrer Flora und Fauna geschützt wird. Es werden kurz die verschiedenen Böden angesprochen und typische Tierherden sowie ein Weinkeller mit Weinen die auf sandigen Böden produziert wurden, besichtigt.

Exkursion C2: Die Ebenen der Languedoc, am Beispiel von Hérault: Hierbei steht die Weinmonokultur und ihre Umwandlungsformen im Vordergrund; es wird die Beziehung zwischen Weinertrag und Qualität des Weines diskutiert, ebenso die Trüffelkultur als ein Beispiel der Umwandlung. Außerdem werden verschiedene Böden kurz gestreift und die Schlucht von Hérault, ein Kloster aus dem 11. Jh. sowie das Dorf von Saint Guilhem-le-Désert mit der Grotte von Clamouse und der Keller einer Winzergenossenschaft besichtigt.

Exkursion C3: Mittlerer Abschnitt des Tales von Hérault und die Fußflächen des Montagne Noir: Die Themen sind: hydrologische Funktionsbedingungen für den Weinbau in der Ebene; Besichtigung eines experimentellen Wassereinzugsgebietes; die Beziehungen zwischen Anbaufläche und Qualität des Weines in der Hügelzone (Weingärten von Faugères - Saint Chinian).Ebenso werden Probleme der Umweltbelastung durch Pestizide angesprochen, sowie kurz die verschiedenen Böden aufgezeigt. Ebenfalls werden der „Zirkus von Mourèze" aus Dolomit, St. Chinianais, das Becken von Salagou mit seinem roten permischen Sandstein, Ruinenflächen und devastierte Flächen gezeigt.

Exkursion C4: Die Garrigue (Buschland) von Hérault: Hierbei handelt es sich um eine mittlere Gebirgslandschaft mit extremer Trockenheit im mediterranen Raum, eine Zone des Übergangs von den hohen Bergrücken zu den litoralen Ebenen mit Weinbau. Hier wird die Verschiedenartigkeit komplementärer Nutzungsmöglichkeiten im Bereich der Stadt von Montpellier aufgezeigt. Man wird traditionelle Nutzungssyteme (Schafzucht und Weinbau) und jüngere Nutzungssysteme (Waldnutzung, Milchwirtschaft und Gemüsefeldbau), die Flora der Garrigue und die außerordentlich diskontinuierliche Bodenbildung im Karst studieren können. Außerdem werden verschiedene Böden kurz gestreift, es werden die Causses mit den Grotten von Demoiselle und Laroque) besichtigt, der Weg der Glashersteller von Couloubrines (16. Jh.) und die Weinkeller von Pic Saint Loup.

Exkursion C5: Die litorale Ebene der Languedoc und das Massiv von Clape: Die Themen sind: die Geschichte der Teiche und Lagunen am Strand; der Kontrast zwischen der Küstenebene und dem Karstmassiv in Küstennähe; die Weinberge und ihre Produkte; die Verschmutzung der Teiche und der Lagunen; die Trüffelzucht in der Garrigue; ein kurzer Einblick in die verschiedenen Böden; außerdem werden die Kathedrale von Maguelon, der Berg Saint Clair in Sète, die Stadt Agde und das Massiv von Clape in den Corbières besichtigt.

15 - KOSTEN

*** Einschreibgebühr für Kongreßteilnehmer,** die sich vor dem 31.Dezember 1997 einschreiben und bezahlen:

- **IBG-Mitglieder: ca. 2.200 FF / Person** (ca. 440 US$ zumderzeitigenUmrechnungskurs
- **Nichtmitglieder: ca. 2.700 FF / Person** (ca. 540 US$ zum derzeitigen Umrechnungskurs)

Für Teilnehmer, die nach dem 31. Dezember 1997 bezahlen, wird ein Zuschlag von 20 % verrechnet. Für Studenten ist eine ermäßigte Einschreibgebühr vorgesehen. **Autoren von Beiträgen müssen die Einschreibgebühr unbedingt vor dem 31. Dezember 1997 bezahlt haben.**

*** Einschreibgebühr für Begleitpersonen,** die sich vor dem 31. Dezember 1997 anmelden: **ca. 350 FF / Person** (ca. 70 US$ zum derzeitigen Umrechnungskurs)

Für Teilnehmer, die sich nach dem 31. Dezember 1997 anmelden und bezahlen, wird die Einschreibgebühr um 20 % höher sein.

*** Die Teilnahme am Galaabendessen des Kongresses** kostet für Personen, die sich vor dem 31. Dezember 1997 einschreiben und bezahlen **ca. 350 FF** (ca. 70 US$ zum derzeitigen Umrechnungskurs). Für Personen, die sich nach dem 31. Dezember 1997 einschreiben und bezahlen sind die Kosten um 20 % höher.

*** Die Teilnahme an einer Tagesexkursion während des Kongresses** kostet für die Teilnehmer, die sich vor dem 31. Dezember 1997 einschreiben und bezahlen ca. **500 FF / Person** (ca. 100 US$). Für Personen, die sich nach dem 31. Dezember 1997 einschreiben und bezahlen sind die Kosten um 20 % höher. **Es werden nur jene Exkursionen durchgeführt, für die sich eine ausreichende Anzahl von Teilnehmern vor dem 31. Dezember 1997 angemeldet haben.**

Die Kosten für die Vor- und Nachkongreß-Exkursionen (inklusive Doppelzimmer und Vollpension, exklusive An- und Abreise zum und vom Abfahrtsort; Preise in US$ zum aktuellen Wechselkurs) sind unterschiedlich:

A1 =	**5500 FF**	**(1100 $US)**	**B3 =**	**5600 FF**	**(1120 $US)**
A2 =	**4900 FF**	**(980 $US)**	**B4 =**	**5200 FF**	**(1040 $US)**
A3 =	**4200 FF**	**(840 $US)**	**B5 =**	**4500 FF**	**(900 $US)**
A4 =	**3500 FF**	**(700 $US)**	**B6 =**	**3700 FF**	**(740 $US)**
B1 =	**5300 FF**	**(1060 $US)**	**B7 =**	**7000 FF**	**(1400 $US)**
B2 =	**5400 FF**	**(1080 $US)**	**B8 =**	**4000 FF**	**(800 $US)**

Für die An- und Abreise werden Gruppentarife angeboten.

Die Preise gelten für diejenigen, die sich vor dem 31. Dezember 1997 einschreiben. Sie werden für jene die sich nach dem 31. Dezember 1997 bezahlen um 20 % erhöht sein.

Nur jene Exkursionen werden durchgeführt, für die sich bis zum 31. Dezember 1997 genügend Teilnehmer angemeldet haben.

16 - INFORMATION UND ANMELDUNG

* Ab dem 1. November 1995 werden alle Informationen die den Kongreß betreffen über Internet unter WWW über die folgende Adresse abrufbar sein:

http://www.cirad.fr/isss.html

Die Informationen werden regelmäßig auf den neuesten Stand gebracht.

*** Die vorläufige Anmeldung zum Kongreß** (siehe unten) muß vor dem **1. April 1996** an das Kongreß-Sekretariat gesandt werden. Das Anmeldeformular kann auch über Internet ausgefüllt und geschickt werden, indem die hierfür vorgesehene Seite auf dem o.g. WWW Server.

Achtung: nur jene Personen, die eine vorläufige Anmeldung eingesandt haben, werden per Post die aktuellen Kongreßinformationen erhalten.

* Das endgültige Kongreßprogramm wird ab Juni 1996 verschickt.

* Die Anmeldung und die Zusendung der schriftlichen Beiträge können auch über Internet erfolgen, indem die hierfür vorgesehenen Seiten im WWW Server (siehe oben) benutzt werden.

* Die Vorschläge für Kongreßbeiträge in Form einer einseitigen Zusammenfassung (2.500 Zeichen maximal), müssen **vor dem 30. April 1997** an das Kongreßsekretariat gesandt werden.

* Die endgültigen Zusammenfassungen und die kompletten Texte, wie sie durch das wissenschaftliche Kongreßkomitee akzeptiert worden sind (max. 7 Seiten oder 16.000 Zeichen) müssen vor dem 31. Dezember 1997 an das Kongreßsekretariat gesandt werden.

Anmeldeschluß für den Kongreß und für die Zahlung der Exkursionen ist der 31. Dezember 1997:

- für die Autoren von Kongreßbeiträgen;
- für die Anmeldung ohne Aufschlag;
- für die Bezahlung der Exkursionen ohne Aufschlag.

Für alle jene, die keine Kongreßbeiträge einreichen wollen, ist auch eine spätere Anmeldung möglich, bis zum Beginn des Kongresses, abhängig von den noch vorhandenen Plätzen. Die Preise sind dann um 20 % höher.

17 - KONGREßORGANISATOREN

Der 16. Bodenkundliche Weltkongreß wird durch die Französische Bodenkundliche Gesellschaft (AFES) in Zusammenarbeit mit der Internationalen Bodenkundlichen Gesellschaft organisiert.

Präsident des Organisationskomitees:
Alain RUELLAN, Präsident der IBG

*

Vizepräsident des Organisationskomitees:
Marcel JAMAGNE, President der AFES und Vizepräsident der IBG

*

Vorsitzender des wissenschaftlichen Komitees:
Georges PÉDRO

*

Der 16. Bodenkundliche Weltkongreß
wird unterstützt und finanziell gefördert vom:

Französischen Ministerium für auswärtige Angelegenheiten,
dem Ministerium für Landwirtschaft, Fischerei und Ernährung,
dem Ministerium für Zusammenarbeit, dem Ministerium für Umwelt, dem Staatssekretariat für Forschung, dem Regionalrat von Languedoc-Roussillon, dem Generalrat des Departments Hérault,
dem Bezirk Montpellier, der Stadt Montpellier, sowie von
Agropolis; CEMAGREF; CIRAD; CNEARC; CNRS; ENSAM; INRA; ORSTOM; ACCT;
Europäische Kommission; FAO; ICSU; UNESCO.

Achtung:
nur jene Personen, die eine vorläufige Anmeldung (siehe nächste Seite) eingesandt haben, werden per Post die aktuellen Kongreßinformationen erhalten.

Montpellier (Frankreich)
20. bis 26. August 1998

ANMELDEFORMULAR

bitte bis spätestens **1. April 1996** einsenden

16ème Congrès Mondial de Science du Sol
Agropolis • Avenue Agropolis • 34394 Montpellier Cedex 5 • France
Tel. (33) 67 04 75 38 • **Fax** (33) 67 04 75 49
E.mail : isss@agropolis.fr • **Server WWW :** http://www.cirad.fr/isss.html

Prof., Dr., Hr., Fr.

....
Familienname **Vorname(n)**

Postadresse: .....

.....

.....

Telefon: ..... **Fax:**.....

E.mail: ..... **Telex:** .....

Ich bin ISSS-Mitglied: **ja** ☐ **nein** ☐
Ich beabsichtige am Kongress teilzunehmen: **sicher** ☐ **vielleicht** ☐
Ich werde voraussichtlich von .....Personen begleitet
Ich werde voraussichtlich einen Beitrag präsentieren: ☐

Thema des Beitrags:.....

.....

Name der Kommission, Subkommission, Arbeitsgruppe oder des ständigen Komitees:.....

.....

Ich werde voraussichtlich an folgender/n Exkursion/en teilnehmen:
• vor dem Kongreß: **A** ..... • nach dem Kongreß: **B** ..... • während des Kongresses: **C**.....

Gewünschte Unterbringung: (ungefähre Preise 1995/Nacht; die Preise können sich ändern):

	Einzelzimmer	**Doppelzimmer**
4 Stern Hotel	☐ (450-500 FF)	☐ (500-550 FF)
3 Stern Hotel	☐ (360-400 FF)	☐ (400-450 FF)
2 Stern Hotel	☐ (200-300 FF)	☐ (300-350 FF)
1 Stern Hotel	☐ (150-250 FF)	☐ (200-300 FF)
Universitätsunterkünfte		☐ (600 FF für zwei Wochen)
Campingplatz	☐	

Datum ..... **Unterschrift** .....

LE PROGRAMME MOBILISATEUR SOLS DE L'ALLIANCE POUR UN MONDE RESPONSABLE ET SOLIDAIRE

Appel à participations et contributions

L'Alliance pour un Monde Responsable et Solidaire a pour objectif de mettre en convergence les volontés de personnes, de toutes origines et de toutes cultures, dans le but de fonder, pour le prochain siècle, un certain nombre de perspectives communes susceptibles d'engager les sociétés humaines vers une transformation des modes de pensée et d'action et, par voie de conséquence, vers une transformation des modes de production et de consommation. La première étape de l'Alliance est de préparer **une grande manifestation internationale (Etats Généraux de la Planète), de réflexions approfondies et d'actions, qui se tiendra en 1999.**

l'Alliance a été créée en 1993, sur la base d'une **Plate-forme pour une Monde Responsable et Solidaire.** 600 personnes et 22 organisations, de 93 pays, ont déjà signé la Plate-forme et ainsi adhéré à l'Alliance.

Les analyses et les idées fondatrices de l'Alliance sont les suivantes (le texte complet de la Plate-forme peut être adressé sur simple demande écrite):

- Si les sociétés humaines continuent à vivre et à se développer de la manière dont elles le font actuellement, l'humanité s'autodétruira: il faut refuser cette perspective.
- Les stratégies d'actions à inventer, pour assurer la survie et l'épanouissement de toutes les sociétés, doivent tenir compte de l'unicité du monde, mais aussi de sa grande diversité.
- Le monde souffre de trois déséquilibres majeurs: entre le Nord et le Sud de la planète, entre les riches et les pauvres au sein de chaque société, entre les hommes et la nature. Ces trois déséquilibres reflètent une triple crise des relations et des échanges: entre les sociétés, entre les hommes, entre les hommes et leur milieu de vie. Ces crises sont inséparables. Les inégalités entre les hommes et entre les sociétés s'accroissent; les équilibres fondamentaux de la planète et du vivant sont atteints: les intérêts des générations futures sont, de ce fait, gravement menacés.
- La „modernité" inventée en Occident est grandement responsable des déséquilibres et des crises. Les deux piliers de cette modernité, que sont la liberté des échanges et la science, devaient être des moyens au service du progrès des hommes. Ils sont en fait, aujourd'hui, trop souvent considérés comme des fins en soi. Science et marché ne valent que par rapport aux choix et aux finalités des sociétés dans lesquelles ils se développent; ils doivent retrouver leur juste place d'outils: outils essentiels, certes, mais outils mis au service d'autres finalités qu'eux-mêmes.
- Ceci dit, il n'y a pas de fatalité: la gravité des menaces et la complexité des défis doivent faire naître la détermination et non le renoncement.
- Parmi les voies du futur, celle du développement „soutenable", respectueux du renouvellement des ressources naturelles (eau, air, sols, océans, biodiversité) et des grands équilibres écologiques, est essentielle, à condition cependant, et ceci est fondamental, que ce développement soit celui de tous, sans exclusion, comme c'est le cas actuellement, d'une large part de l'humanité.

Les programmes mobilisateurs de l'Alliance

Pour répondre aux défis, l'un des moyens de mise en mouvement est celui de la mise en oeuvre collective de quelques **grands programmes mobilisateurs internationaux** qui devront associer, pour la réflexion et pour l'action, des acteurs économiques, politiques et scientifiques. Ces programmes s'inscriront dans la durée (15 à 20 ans) et dans la diversité des réalités et des besoins des différentes régions du monde; ils conduiront à la mise en place progressive de capacités institutionnelles et techniques décentralisées, enracinées dans les populations et à leur écoute, avec notamment des protocoles d'accord passés avec les représentants des populations. Ces programmes conduiront à la mise en place progressive de solutions techniques, économiques, sociales, politiques.

Il est proposé de monter cinq programmes mobilisateurs: l'eau, l'énergie, les sols, la revitalisation de régions profondément dégradée, la conversion des industries d'armement.

Le présent texte a pour objectif d'informer les membres de l'AISS de l'existence du « Programme Mobilisateur Sols » et de leur offrir la possibilité d'y participer.

Le Programme Mobilisateur Sols

L'homme détruit ses sols. Dans de nombreuses régions, il le fait encore par ignorance: parce qu'il faut bien survivre, on cultive n'importe comment. Dans d'autres régions, c'est la course à la production, associée à une ignorance voulue, qui détruit: l'utilisation excessive, inadaptée, de certains matériels agricoles lourds, de certains engrais, de pesticides, de certaines méthodes d'irrigation... se fait au détriment de la fertilité des sols et des milieux; les meilleurs sols produisent plus, mais sont de plus en plus malades; les milieux produisent plus, mais sont de plus en plus pollués, de plus en plus fragiles , de plus en plus dangereux pour la santé des individus et des sociétés.

Les nécessités vitales de la protection de l'environnement vont obliger à retrouver, progressivement, une agriculture moins artificielle, moins polluante; mais cette **agriculture n'existera que si elle peut s'appuyer sur des fonctions pédologiques naturelles, retrouvées.** C'est, dans la plupart des cas, encore possible. Cette agriculture sera, probablement, moins „productive à l'hectare"; mais elle pourra s'étendre sur des surfaces bien plus grandes, et il est déjà prouvé, dans certains cas, qu'elle sera économiquement plus rentable tout en étant plus respectueuse de l'environnement: qualité des produits, qualité des eaux, qualité de l'air ... **qualité et pérennité de la vie.**

La perception que l'homme a du sol, de même que son comportement vis à vis du sol, doivent donc changer. Le programme mobilisateur concernant les sols doit aider à la réalisation de cette mutation.

Le Programme Mobilisateur Sols veut promouvoir, à toutes les échelles, la mise en oeuvre de formes d'exploitation durable qui assurent une vie décente, en harmonie avec le milieu, à l'ensemble de l'humanité. Pour cela, une réelle mutation dans les modes de pensées et d'action des sociétés humaines, se traduisant par une transformation des modes de production et de consommation, est nécessaire.

Trois priorités ont été assignées à ce programme (le texte complet du Programme Mobilisateur Sol peut être adressé sur simple demande écrite):

1 - **Faire évoluer les mentalités:** il s'agit de faire la nécessaire pour une prise de conscience collective de l'existence des sols et de leur importance primordiale pour l'avenir de l'humanité. Il s'agit **d'une démarche pédagogique** visant à construire un nouveau regard sur le sol et à montrer des exemples concrets de mauvaise et de bonne gestion de la ressource sol.

2 - **Revaloriser le „statut" du sol**, en l'élevant au rang de ressource naturelle, difficilement renouvelable, dont l'utilisation doit obéir à certaines règles, à un cahier de charge. A cet effet, le programme propose de réfléchir aux voies et moyens d'amener les Etats à protéger, autrement dit bien gérer, leur ressource sol, et la communauté internationale à considérer le sol comme un patrimoine universel.

3 - **Mobiliser la solidarité internationale contre la dégradation des sols.** Cette solidarité est indispensable pour atténuer la pression sur les sols là où la baisse de la fertilité, la dégradation et l'érosion prennent de l'ampleur; notamment dans les pays du Sud, où les sols sont de plus en plus sollicités pour la production de nourriture.

Concrètement, nous appelons aux collaborations et contributions suivantes:

*** écrivez-nous pour manifester votre intérêt et vos interrogations;** nous vous ferons immédiatement parvenir un dossier complet d'information qui vous permettra, si vous le souhaitez, d'adhérer et de contribuer à l'Alliance et au Programme Mobilisateur Sol;

*** envoyez-nous, sous la forme de textes de quelques pages,** des exemples de mauvaise et de bonne gestion des sols, des exemples d'éducation populaire, des réflexions théoriques et pratiques, des résultats de recherche, des propositions d'actions, etc...; n'hésitez pas à y joindre les illustrations nécessaires: photos, graphiques, dessins, ...; vos textes seront publiés dans un dossier qui sera largement diffusé;

*** dites-nous si vous seriez prêt à participer à une conférence électronique** qui permettrait d'accélérer les échanges d'informations.

Adresse pour la correspondance: Prof. Dr. Rabah LAHMAR

Fondation pour le Progrès de l'Homme
38, rue Saint Sabin
75011 Paris, France
Fax: (33) 1 43 57 06 63
e-mail: rabah.lahmar@fph.fr

par **Mireille Dosso, Rabah Lahmar, Alain Ruellan**

SOILS MOBILISING PROGRAMME OF THE ALLIANCE FOR A RESPONSIBLE AND UNITED WORLD

Call for participation and contributions

The Alliance for a Responsible and United World aims to converge the ideas of people of all origins and cultural backgrounds, in order to lay down a certain number of common prospects for the 21st century, working towards involving human societies in the transformation of their modes of thought and action, leading to the transformation of modes of production and consumption. The first stage of the Alliance consists in preparing a **great international manifestation (States General of the Planet) of elaborate reflections and actions, which will be held in 1999.**

The Alliance has been created in 1993 on the basis of the Platform for a Responsible and United World. 600 persons and 22 organisations from 93 countries have already signed the **Platform and thus joined the Alliance.**

The analysis and underlying ideas of the Alliance are the following (the full text of the Platform will be sent on written request):

- If human societies continue to live and develop in the present way, humanity will destroy itself: this prospect is unacceptable.
- The action strategies we must devise to ensure the survival and self-fulfilment of all societies, must take account of the uniqueness of the world, but also of its infinite diversity.
- The world is suffering from three major imbalances: that between the North and the South of our planet, that between the rich and the poor people within each society and that between man and nature. These three imbalances reflect a three-fold crisis of relationships and exchanges: between societies, between people and between people and their environment. These crises are inseparable. The inequalities between men and between societies are increasing; the fundamental balances of the planet and of the life forms are at stake: the interests of the future generations are, consequently, seriously threatened.
- The „modernity" invented in the West is largely responsible for these imbalances and crises. The two bastions of this modernity, freedom of trade and science, were meant to serve human progress. Today, they are too often considered as an end in themselves. Science and the market are only valuable in terms of the choices and goals of the societies in which they develop; they must find their proper place as tools: essential tools deployed in pursuit of goals and not as an end in themselves.
- The situation is not hopeless, the gravity of the threats or the complexity of the challenges we face must give rise to resolve, not renunciation.
- Among the paths to the future, that of „sustainable" development, taking into account the renewability of natural resources (water, air, soil, oceans, biodiversity) and the major ecological

balances, is essential, on the condition, however - and this is fundamental - that this development is available to everyone, without, as at present, excluding a large part of humanity.

Mobilising programmes of the Alliance

To meet these challenges, one way of setting things in motion is to focus energy on several **great international mobilising programmes** which should associate, through reflection and action, those responsible in the fields of economy, politics and science. These will be long-term programmes taking into account the diversity of realities and priorities of the various regions of the world; they will lead to the progressive setting up of institutional and technical capacities which will be decentralised, rooted in the population and attentive to its needs, with treaties drawn up with their respective representatives. These programmes will progressively lead to the setting up of technical, economical, social and political solutions.

Five mobilising programmes have been put forward: water, energy, soils, the revitalisation of severely deteriorated regions, and the conversion of the armament industries.

The objective of the present paper is to inform the ISSS members that a „Soil Mobilising Programme" exists, and give them the opportunity to participate in this programme.

The Soils Mobilising Programme

Man is destroying his soils. In a number of regions, he does so because of ignorance: the need to survive makes him cultivate the soil however he can. In other regions, it is the race for increased production, combined with wilful ignorance, which destroys: excessive and ill-adapted use of certain heavy agricultural machines, certain fertilizers, pesticides, certain methods of irrigation... deteriorate soil fertility and the environment; the best soils produce more, but they are more polluted, more fragile and more dangerous for the health of human societies.

The need to protect the environment will compel us to return, progressively, to a less artificial, less polluting form of agriculture; but **this agriculture cannot exist unless it is supported by a return to the knowledge and to the use of the natural pedological functions.** In most cases this is still possible. This form of agriculture will be less „productive by the acre"; but it will use more surfaces actually abandoned, and it has already been proved, in certain cases, that it will be more profitable economically and, at the same time, it will preserve the environment better: product quality, water quality, air quality ... **quality of life and a long life span.**

Man's perception of the soil and his behaviour in relation to it must therefore change. The Soils Mobilising Programme must help to realize this change.

The Soils Mobilising Programme endeavours to promote various forms of sustainable use of soils, ensuring a decent life, in harmony with the environment, for humanity as a whole. This needs a real change in the modes of thought and action of human societies, conveyed in terms of modes of production and consumption.

This programme has three priorities (the full text of the Soil Mobilising Programme will be sent on written request):

1 - **To create consciousness** by doing whatever is necessary to raise collective awareness of the existence of soils and its primordial importance for the future of mankind. This requires an **educational approach** aiming at creating a new way of looking at soil and giving examples of good and bad management of the resource soil.

2 - **To re-evaluate the „status" of soil,** declaring soil a natural resource, the use of which should abide by certain rules and a number of conditions. To this effect, the programme proposes that thinking be oriented towards finding ways and means to get States to protect, i.e. to manage, their soil resources well, and for the international community to consider soils a universal patrimony.

3 - **To mobilise international solidarity against soil deterioration.** This solidarity is essential if we are to reduce pressure on soils where the drop in fertility, degradation and erosion are extensive; particularly in countries of the South, where soils are in increasing demand for food production.

Concretely, we call for the following co-operation and contributions:

*** write to us, manifesting your interest and your questions;** we will promptly send you a complete information folder which will allow you, if you want, to adhere and contribute to the Alliance and to the Soils Mobilising Programme;

*** send to us, in the form of texts of few pages,** examples of good or poor soil management, examples of education of the general public, theoretical and practical reflections, results of research, proposals of actions, etc...; don't hesitate to include necessary illustrations: pictures, graphics, drawings,...; your papers will be published in a widely distributed publication;

* to make the exchange of information faster, please **tell us if you would like to participate in an electronic conference.**

Address for correspondence: Prof. Dr. Rabah LAHMAR

Fondation pour le Progrès de l'Homme
38, rue Saint Sabin 75011 Paris, France
Fax: (33) 1 43 57 06 63
e-mail: rabah.lahmar@fph.fr

by **Mireille Dosso, Rabah Lahmar, Alain Ruellan**

CHANGE OF TELEPHONE, FAX AND E-MAIL NUMBERS OF THE DEPUTY SECRETARY-GENERAL

Most numbers in The Netherlands changed on 10 October 1995 to comply with European regulations

The new communications will be:

Telephone:	+31-317-471716 / 471711
Fax:	+31-317-471700
E-mail:	ISSS@ISRIC.NL or SOIL@ISRIC.NL

The postal address remains:

Hans van Baren
ISSS
P.O.Box 353
6700 AJ Wageningen, THE NETHERLANDS

ISSS PROCEEDINGS

The proceedings of the last three International Congresses of Soil Science can be ordered at a reduced rate for ISSS members.

Proceedings 13th International Congress of Soil Science, Hamburg, 1986 (set of 6 volumes)	NLG 25.—
Proceedings 14th International Congress of Soil Science, Kyoto, 1990 (set of 7 volumes)	NLG 75.—
Proceedings 15th World Congress of Soil Science, Acapulco, 1994 (set of 17 volumes)	NLG 100.—

ORDER FORM

Please send me the set(s) of the proceedings of the International Congress(es) of Soil Science mentioned below:

set(s) of the 13th ICSS, Hamburg, à NLG 25.— per set	NLG .....
set(s) of the 14th ICSS, Kyoto, à NLG 75.— per set	NLG .....
set(s) of the 15th WCSS, Acapulco, à NLG 100.— per set	NLG .....
set(s) packing and surface mailing charges à NLG 35.— per set (air mail charges on request)	NLG .....
Bank charges	NLG 25.—
Total amount	NLG .....

Prepayment required

☐ I am enclosing a cheque / bank draft / cash / Unesco coupons, for NLG .....
or equivalent in convertible currency

☐ Please send me a proforma invoice.

Name: .....

Address: .....

.....

.....

.....

Signature: ..... Date: .....

Return to: ISSS/ISRIC
P.O.Box 353
6700 AJ Wageningen
The Netherlands
Fax: +31-317-471700

ANNOUNCEMENTS

XII INTERNATIONAL COLLOQUIUM ON SOIL ZOOLOGY

Dublin, Ireland 21-26 July 1996

I intend to participate in the XII International Colloquium on Soil Zoology to be held in Dublin, Ireland 21-26 July, 1996.

Name: .....

Institution: .....

.....

.....

Postal address: .....

.....

.....

Phone: .....

Fax: .....

E-mail: .....

I intend to submit a paper entitled: .....

.....

.....

Please return this form as soon as possible to:

Dr. Tom Bolger
Department of Zoology
University College Dublin
Belfield, Dublin 4, IRELAND

Phone: +353-1-7062330
Fax: +353-1-7061152
E-mail: tbolger@ollamh.ucd.ie

9th INTERNATIONAL ISCO-CONFERENCE
„TOWARDS SUSTAINABLE LAND USE - FURTHERING COOPERATION BETWEEN

People and Institutions"

Bonn, August 26 - 30, 1996

Organizers:

The German Society of Soil Science (DBG), the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, the German Federal Ministry for Economic Cooperation and Development, the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, and the German Federal Environmental Agency, in collaboration with the World Association of Soil and Water Conservation (WASWC), the International Society of Soil Science, and the European Society for Soil Conservation (ESSC).

For the first time, ISSS is co-sponsoring an ISCO-Conference.

Topics:

Topic 1: Soil conservation and sustainable land use - various responses to erosion and desertification

Topic 2: Other forms of soil degradation - assessment, prevention and rehabilitation

Topic 3: Influence of demographic, socio-economic and cultural factors on sustainable land use

Topic 4: Soil conservation and sustainable land use - innovations in approaches, technologies and practices

Topic 5: Furthering cooperation between people and institutions

For further information please contact:

Mr. A. Klein
Federal Environmental Agency
FG II 3.2 / Soil Quality
P.O.Box 33 00 22
14191 Berlin
Germany

Tel: (+49-30) 231-45-746
Fax: (+49-30) 229-30-96 or -231-56-38
E-mail: 100434.1121@compuserve.com

INTERNATIONAL WORKSHOP OF COMMISSION I, ISSS: SOIL STRUCTURE - PHYSICAL PROCESSES AND FUNCTIONS IN ECOSYSTEMS

Christian Albrechts University zu Kiel (Germany), September 5-7, 1996

Theme: Soil structure influences not only physical, mechanical, chemical, and biological site properties but also environmental effects (soil compaction, groundwater pollution, waste deposit sealing systems, filtering and buffering properties of soils) and it is also discused with respect to the sustainability of soils e.g. in agriculture. Knowledge about the processes involved and appropriate application of techniques to predict and to ameliorate soils should be gathered and shared among all those who are interested in soil structure processes and functions.

Sessions: The workshop is composed of 2 sessions, each of which will start with invited review papers:
- Session 1: Effect of soil structure on mechanical processes in unsaturated soils
- Session 2: Water and ion transport processes in unsaturated structured soils

Abstracts: Abstracts of 2 pages (600 words) max. for both oral and poster presentations should include title, author(s), institution address and proposed session number. Abstracts will be distributed as a book to the delegates upon registration.

Oral Presentation: Duration: 20-30 minutes, including time for discussion. Duration of keynote presentations: 45 minutes.

Poster Presentation: Posters will be displayed in the main hall during extra time, not overlapping with oral lectures.

Accommodation: A variety of hotels is available in Kiel, prices ranging from 50-200 DM (bed and breakfast). A list of hotels together with prices, telephone and fax numbers will be distributed together with the workshop programme in spring 1996.

Banquet: During the workshop, an evening dinner will be organized. Price: DM 60.—

Registration Fees: The fee of DM 100.— includes lunch, coffee, abstracts and workshop programme. Payment is to be effected, in German marks (DM) only, by March 31, 1996, to account No. 25270802, Code: Soil Structure, AST-No. 21050170, Sparkasse Kiel.

Cancellation: In case of cancellation later than May 31, 1996, no registration fees will be refunded. Before this date, 75 % will be refunded.

Prof.Dr. Rainer Horn
Institute of Plant Nutrition and Soil Science,
Christian Albrechts University zu Kiel
Olshausenstrasse 40, GERMANY

Tel:+49-4318803190;
Fax:+49-4318802940
E-mail: ape08@rz.uni-kiel.d400.de

THE ROLE OF HUMIC SUBSTANCES IN THE ECOSYSTEM AND IN ENVIRONMENTAL PROTECTION

8th International Meeting of the International Humic Substances Society

9 - 14 September 1996, Wroclaw, Poland

Main Topics

1. Chemistry and Structure of Humic Substances,
2. Turnover of Humic Substances in Terrestrial Ecosystems
3. Humic Substances in Aquatic and Sedimentary Systems
4. Interaction of Humic Substances with Xenobiotics and Heavy Metals
5. Recycling and Utilization of Organic Municipal and Agricultural Wastes
6. Effect of Humic Substances on Biological Activity (Agriculture, Medicine)
7. Role of Humic Substances in the Remediation of Degraded Environments

PRE-REGISTRATION FORM

Please type or write in CAPITALS and mail to:

IHSS 8 Conference
Agricultural University of Wroclaw
Institute of Soil Science and Agricultural Environmental Protection
Grunwaldzka 53, 50-357 Wroclaw, Poland

Fax: +48(71)224849,
Phone: +48(71)205632
e-mail: ihss@ozi.ar.wroc.pl

Surname: ..... First name: .....

Affiliation: .....

.....

Mailing address: .....

.....

Code/city: ..... Country: .....

Fax: ..... E-mail: .....

I am interested in attending the IHSS 8 Meeting. I am a member of IHSS yes ☐ no ☐

My preferred sessions are: 1 ☐, 2 ☐, 3 ☐, 4 ☐, 5 ☐, 6 ☐, 7 ☐

The tentative title is: .....

.....

Date: ..... Signature:.....

II INTERNATIONAL CONFERENCE ON „CRYOGENIC SOILS: ECOLOGY, GENESIS AND CLASSIFICATION"

Syktyvkar, Komi Republic, Russia, August 5-8, 1997

FIRST CIRCULAR / NOTICE OF INTENT

Organized by the Russian Society of Soil Science, together with;
The International Permafrost Association;

the Scientific Council on Earth Cryology;
the Russian Academy of Sciences:
the Institute of Biology, Komi Scientific Center, Syktyvkar,
the Institute of Soil Science and Photosynthesis, Pushchino,
the Institute of Geography, Moscow;
the Dokuchaev Soil Institute, Moscow;
and the International Society of Soil Science

Programme of the conference sessions:

1.Ecological aspects of cryogenic soils
2.Genesis and geography of cryogenic soils
3.Classification and databases of cryogenic soils and soil regimes and patterns.

Round table discussion: Organization of international environmental monitoring activities in permafrost regions.

Field excursions:

1.One-day mid-conference excursion in the Syktyvkar area
2.2-day post-conference field trip to the southern part of the tundra zonenear Vorkuta

Registration fees have not yet been fixed, but will be about USD 250 (without Vorkuta trip) or USD 300 (including Vorkuta trip).

I intend to take part in the II INTERNATIONAL CONFERENCE „CRYOGENIC SOILS: ECOLOGY, GENESIS AND CLASSIFICATION"

Surname: ..... First name: .....

Institution: .....

Address: .....

.....

Phone: ..... Fax: .....

E-mail: .....

Title of presentation: .....

.....

Please send this form to:
Prof. I.V. Zaboeva, Institute of Biology, Komi Center, Russian Academy of Sciences, 167610 Syktyvkar, Komi Republic, Russia - Tel./Fax: +7-821-22-25213
or:
Dr. S.V. Gubin, Institute of Soil Science and Photosynthesis, Russian Academy of Sciences, 142292 Pushchino, Moscow region, Russia - E-mail: gilichin@issp.serpukhov.su.

ISSS-AISS-IBG

Notice of Intent/Registration Form
Note d'Intérêt/Fiche d'Inscription
Absichtserklärung/Anmeldeformular

To: Organizing Committee of

. . . . . .

. . . . . .

. . . . . .

From: Name and title

. . . . . .

full address: . . . . . .

. . . . . .

. . . . . .

telephone: fax:

Dear Madam, Sir,

○ I intend to participate in the conference, meeting, seminar, workshop* mentioned above. Please send me detailed information.

○ I intend to present a paper/poster*, entitled:

Comments:

○ I register for participation in the conference, meeting, seminar, workshop*, mentioned above.

. . . . . .

Comments:

Date: Signature:

*) please delete if not applicable

Das neue Kompendium zur Bodenkunde: Umfassende Darstellung des bodenkundlichen Wissens – von den Grundlagen bis zu Spezialgebieten

Blume/Felix-Henningsen/Fischer/
Frede/Horn/Stahr

Handbuch der Bodenkunde

1. Auflage 1995, Loseblattwerk im Leinenordner mit laufenden Aktualisierungen, ca. 500 Seiten, Format 21 x 28 cm
ISBN 3-609-72210-X

Fortsetzungspreis
DM **148,–**/öS **1.155,–**/sFr **140,–**
(mit automatischem Ergänzungsdienst zum Seitenpreis von derzeit DM -,58/öS 5,-/sFr -,58)

Einzelpreis (ohne Ergänzungsdienst)
DM 198,-/öS 1.545,-/sFr 185,-

Das Werk stellt das heutige Wissen zur Bodenkunde umfassend dar. Eine derartige Darstellung gab es zuletzt mit dem Handbuch der Bodenlehre vor mehr als 60 Jahren. Inzwischen sind die Kenntnisse zur Bodenkunde beträchtlich gewachsen, die Erfahrungen in der angewandten, ingenieurwissenschaftlichen Bodenkunde haben stark zugenommen.
Das gesamte Wissen zur Bodenkunde in ausführlicher und umfassender Form findet sich in diesem neuen Kompendium. Selbst Spezialgebiete wie die Bodenmineralogie, Ackerböden oder Bodenfunktionen sind enthalten.

Das Werk gliedert sich in 8 große Teile:

Teil 1: Wesen eines Bodens und von Böden
Teil 2: Böden als Naturkörper
Teil 3: Böden als Teile von Landschaften
Teil 4: Funktionen von Böden
Teil 5: Bodenkultivierung, Bodenmelioration
Teil 6: Anthropogene Bodenveränderungen und -belastungen
Teil 7: Bodenschutz
Teil 8: Bodensicherung, -sanierung und -restaurierung

Subskriptionspreis bis 31.12.95
DM **128,–**/öS **999,–**/sFr **120,–**

Zu beziehen über:

ecomed verlagsgesellschaft

Rudolf-Diesel-Straße 3
D-86899 Landsberg
Telefon +49-81 91-12 55 43
Telefax +49-81 91-12 54 92

Bestellcoupon USL

Ja, hiermit bestelle/n ich/wir mit garantiertem Rückgaberecht innerhalb von 14 Tagen nach Erhalt:

Handbuch der Bodenkunde
ISBN 3-609-72210-X

___ Ex. zum Subskriptionspreis bis 31.12.95
DM **128,–**/öS **999,–**/sFr **120,–**,
danach DM 148,-/öS 1.155,-/sFr 140,-
(mit automatischem Ergänzungsdienst)

___ Ex. Einzelpreis DM **198,–**/öS **1.545,–**/sFr **185,–**
(ohne Ergänzungsdienst)

Name/Firma

Anschrift

Datum Unterschrift

Kauf ohne Risiko: ich weiß, daß ich bei Nichtgefallen volles Widerrufsrecht für meine Bestellung innerhalb von 14 Tagen nach Erhalt habe. Zur Wahrung der 14-Tage-Frist genügt die rechtzeitige und ausreichend frankierte Rücksendung der Lieferung.

Datum Unterschrift

HAVE YOU ALREADY PAID YOUR ISSS MEMBERSHIP FEE FOR 1995?

For your information: on your address label (first line) you will find your membership number:

xxx-yyyyy 1995 - I or L

xxx	three-digit country code which generally indicates the country of residence of the member or the national society to which the member is affiliated.
yyyyy	five-digit current registration number of the ISSS
year I or L:	indicates the year, for which the last contribution was paid
95-I	individual payment for 1995 by the member directly to ISSS
95-L	payment for 1995 through the national society

ISSS membership fee:

12 US$ per year, if paid directly to account no. 817338.61T (account in US$) at the Schweizerische Bankgesellschaft (SBG), CH-8903 Birmensdorf, Switzerland

Payment by **cheque to the address of the Treasurer:**

17 US$, AS THE BANK FEES AMOUNT TO 5 US$

Dr. Peter U. Lüscher

WSL, Zürcherstrasse 111

CH-8903 Birmensdorf, Switzerland

phone: (41)-1-739-2299,

fax: (41)-1-739-2215

Reduced fee for an **advance payment** of **four** years:

44 US$ (CHEQUE: 49 US$)

For outstanding membership fees (before 1994) reminders are being sent out. We would kindly ask all members who have not yet paid their membership fees to balance their accounts as soon as possible.

Dr. P.U. Lüscher, Treasurer

AVEZ-VOUS AVEZ DÉJÀ PAYÉ VOTRE COTISATION ANNUELLE DE L'AISS POUR 1995?

Pour vous permettre de contrôler: sur votre étiquette d'adresse figurant sur l'enveloppe du bulletin, vous trouverez votre numéro d'enregistrement:

xxx-yyyyy 1995-I ou **L**

xxx	code du pays (trois chiffres), indiquant en général le pays de résidence ou l'association nationale, à laquelle le membre est affilié.
yyyyy	code d'enregistrement interne à l'AISS (cinq chiffres)
année-I ou L:	l'année du dernier paiement
95 I	pour 1995, cotisation payée individuellement, c'est à dire directement à l'AISS par le membre à l'AISS
95 L	pour 1995 cotisation payée par l'association nationale

Cotisation AISS actuelle:

12 US$ par an, à payer directement sur le compte de l'AISS:

compte no 817338.61T (compte en US$) Schweizerische Bankgesellschaft (SBG), CH-8903 Birmensdorf, Schweiz

Si vous envoyez un **chèque à l'adresse du trésorier,** veuillez SVP ajouter 5 US$ s.v.p. pour couvrir les dépenses supplémentaires, soit **au total 17 US$**

Dr. Peter U. Lüscher
WSL, Zürcherstrasse 111
CH-8903 Birmensdorf, Suisse
tél: (41)-1-739-2299,
fax: (41)-1-739-2215

Si vous payez pour quatre ans à l'avance, une réduction de cotisation sera accordée:

44 US$ (par chèque: 49 US$)

Pour les cotisations annuelles antérieures à 1994 qui ne sont toujours pas payées nous envoyons un rappel. Nous demandons à tous les membres qui n'ont pas payé leurs cotisations annuelles de les régler dans les meilleurs délais.

Peter Lüscher, Trésorier

HABEN SIE IHREN IBG MITGLIEDERBEITRAG 1995 BEREITS BEZAHLT?

Zur Kontrolle: Auf der Adressetikette (oberer Rand) steht Ihre Mitgliedernummer:

xxx-yyyyy 1995 - I oder L

xxx entspricht einem dreistelligen Ländercode und

bezeichnet in der Regel das Land, in dem das Mitglied der nationalen Gesellschaft angehört bzw. in den meisten Fällen auch wohnt

yyyyy entspricht einer laufenden fünfstelligen Nummer in unserer Registratur

Jahr I oder L: gibt das Jahr an, für das der letzte Beitrag bezahlt wurde

95-I individuelle Zahlung für 1995 vom Mitglied direkt an die IBG-Kasse

95-L Zahlung für 1995 über die nationale Gesellschaft

IBG-Beiträge:

pro Jahr 12 US $, bei Direktzahlung auf das Konto No. 817338.61T (Kto. in US$) Schweizerische Bankgesellschaft (SBG), CH-8903 Birmensdorf, Schweiz

Zahlungen mit **Scheck an die Adresse des Schatzmeisters:**

17 US$, da Bankspesen 5 US$

Dr. Peter U. Lüscher
WSL, Zürcherstrasse 111
CH-8903 Birmensdorf, Schweiz
Tel: (41)-1-739-2299,
Fax: (41)-1-739-2215

Ermässigung bei **Vorauszahlung** für **vier** Jahre:

44 US$ (Scheck: 49 US$)

Für ausstehende Mitgliederbeiträge (< 1994) werden zur Zeit Mahnungen versandt. Wir bitten alle Mitglieder mit Zahlungsrückständen diese möglichst umgehend zu begleichen.

Peter Lüscher, Schatzmeister

ADDRESSES
of
THE OFFICERS AND CHAIRPERSONS OF COMMISSIONS, SUBCOMMISSIONS, WORKING GROUPS AND STANDING COMMITTEES OF ISSS

OFFICERS:

President:	Prof.Dr. A. Ruellan, CNEARC, 1101, Av. Agropolis, B.P. 5098, 34033 Montpellier Cedex 1, France.
Vice president:	Dr. M. Jamagne, AFES-INRA, Domaine de Limère, 45160 Ardon, France.
1st Past president:	Prof.Dr. A. Aguilar Santelises, Universidad Autónoma de Chapingo, Mexico.
2nd Past president:	Prof.Dr. A. Tanaka, Hokkaido Univ., Faculty of Agric., Kita 9 nishi 9 Kita-ku, Sapporo 060, Japan.
3rd Past president:	Prof.Dr.K.H.Hartge, Institut für Bodenkunde der Universität Hannover, Herrenhäuser Strasse 2, 30419 Hannover, Germany.
Secretary general:	Prof.Dr.W.E.H.Blum, Institut für Bodenkunde der Universität für Bodenkultur, Gregor Mendel-Str.33, A-1180 Wien, Austria.
Deputy-Secret.Gen.:	Drs. J.H.V. van Baren, ISRIC, P.O. Box 353, 6700 AJ Wageningen, The Netherlands.
Treasurer:	Dr. P.U.Lüscher, Eidg. Forschungsanstalt für Wald, Schnee u. Landschaft (WSL), Zürcherstr.111, CH-8903 Birmensdorf, Switzerland.

COMMISSION I:

Chairperson:	Prof.Dr. R. Horn, Institut f. Pflanzenernaehrung u. Bodenkunde, Olshausenstr. 40, 24118 Kiel, Germany
Past Chairperson:	Dr.G.Vachaud, Institut de Mécanique (IMG), B.P. 53 X, F-38041 Grenoble, France.
1st Vice Chairperson:	Prof.Dr.M.B. Kirkham, Evapotranspiration Lab., Dept. of Agronomy, 204 Waters Annex, Manhattan, Kansas 66506-3801, USA.
2nd Vice Chairperson:	Prof.Dr. V. Medvedev, Institute for Soil Science and Agrochemistry Research, Ukrainian Agrarian Acad., Chajkovsky st., 4, Kharkov, 310024 Ukraine
3rd Vice Chairperson:	D. Tessier, Science du Sol, INRA Route de Saint Cyr, 78026 Versailles Cédex, France
Secretary:	

COMMISSION II:

Chairperson:	Prof.Dr. Nicola Senesi, University of Bari, Istituto di Chimica Agraria, Via Amendola 165/A, 70126 Bari, Italy.
Past Chairperson:	Prof.Dr.Roger S.Swift, Chief, Division of Soils, CSIRO, P.M.B.2, Glen Osmond, Adelaide, South Australia 5064, Australia
1st Vice Chairperson:	D. Sparks, USA
2nd Vice Chairperson:	R. Rosell, Argentina
3rd Vice Chairperson:	G. Bourrie, Science du Sol, INRA, 65, rue de Saint Brieuc, 35042 Rennes Cédex, France
Secretary:	

COMMISSION III:

Chairperson:	Prof.Dr. J.M. Tiedje, Center for Microbial Ecology, Michigan State University, 540 Plant&Soil Sciences Building, East Lansing, MI 48824-1325, USA.
Past Chairperson:	Prof.Dr.J.M.Lynch, Head, School of Biological Sciences, University of Surrey, Guildford, Surrey, GU2 5XH, United Kingdom.
1st Vice Chairperson:	J. K. Ladha, Philippines

2nd Vice Chairperson:	D.G. Zviagnitsev, Dept. of Soil Sci., Microb. Section, Miscow State University, Pygevsky per, 119889 Moscow, Russia
3rd Vice Chairperson:	P. Lavelle, ORSTOM, 72, route d'Aulnay, 93143 Bondy Cédex, France
Secretary:	
COMMISSION IV:	
Chairperson:	Prof.Dr. P.A. Sanchez, ICRAF, United Nations Av., Gigiri, P.O.Box 30677, Nairobi, Kenya
Past Chairperson	:Prof.Dr.C.J.Asher, Dept. of Agriculture, The University of Queensland, St. Lucia, QLD 4072, Australia.
1st Vice Chairperson:	Z. Karim, Bangladesh
2nd Vice Chairperson:	G.F. Blair, Australia
3rd Vice Chairperson:	J.-C. Remy, Science du Sol, INRA-ENSA, 2, place Viala, 34060 Montpellier Cédex, France
Secretary:	
COMMISSION V:	
Chairperson:	Prof.Dr. V.O. Targulian, Institute of Geography, Russian Academy of Sciences, Staromonetny, 29, Moscow 109017, Russia.
Past Chairperson:	Dr.H.Eswaran, USDA Soil Conservation Service, P.O.Box 2890, Washington DC 20013, USA.
1st Vice Chairperson:	R. Fall, Senegal
2nd Vice Chairperson:	J. Sehgal, NBSS-LUP, Amravati Road, Nagpur 440 010, India
3rd Vice Chairperson:	J.-P. Legros, Science du Sol, INRA-ENSA, 2, place Viala, 34060 Montpellier Cédex, France
Secretary:	
COMMISSION VI:	
Chairperson:	Dr. S.M. Virmani, ICRISAT, Pantancheru P.O., 502 324 Hyderabad, India
Past Chairperson:	Prof.Dr.G.S.Sekhon, Dept. of Soils, Punjab Agric. University, Ludhiana 141 004, Punjab, India
1st Vice Chairperson:	S.S. Malhi, Canada
2nd Vice Chairperson:	A. Rengasami, Australia
3rd Vice Chairperson:	B. Lesaffre, CEMAGREF; B.P. 44, 92163 Antony, Cédex, France
Secretary:	
COMMISSION VII:	
Chairperson:	Dr. M. Robert, INRA, Science du sol, Route de Saint Cyr, 78026 Versailles Cedex, France
Past Chairperson:	Prof.Dr.R.J.Gilkes, University of W.A., Dept.of Soil Science, Nedlands, WA 6009, Australia
1st Vice Chairperson	M.J. Wilson, U.K.
2nd Vice Chairperson:	Prof.Dr.K.Stahr, Univ. Hohenheim/Bodenkunde, Emil-Wolff-Str.27, D-70574 Stuttgart, Germany.
3rd Vice Chairperson:	D. Righi, Lab. de Pédologie, Université de Poitiers, UFR Sciences/U.A. 721 du CNRS, 40 avenue du Recteur Pineau, 86022 Poitiers Cédex.
Secretary:	
COMMISSION VIII:	
Chairperson	Dr. Ch. de Kimpe, Agriculture Canada, Direction Générale de la Recherche, Sir J. Carling Bldg. 725, 930 Carling Av., Ottawa, Ont. K1A 0C5, Canada
1st Vice Chairperson:	Prof. Zhao Qiguo, Inst. of Soil Science, Academia Sinica, P.O.Box 821, Nanjing 21008, P.R. China

2nd Vice Chairperson:	Prof. B.P. Warkentin, Dep. of Soil Science, Oregon State Univ., Corvallis OR 97331, USA
3rd Vice Chairperson:	F. Andreux, Centre des Sciences de la Terre, Université de Bourgogne, 6, boulevard Gabriel, 21000 Dijon, France
SUBCOMMISSION A:	
Chairperson:	Dr.M.Redly, Research Inst. for Soil Science and Agricultural Chemistry, Herman Otto ut 15, 1022 Budapest, Hungary.
1st Vice Chairperson:	Dr. S. Arunin, Land Development Department, Phahon Yo Thin Rd., Chatuchak 109000, Thailand
2nd Vice Chairperson:	S. Matsumoto, Japan
3rd Vice Chairperson:	V. Valles, Science du Sol, INRA, BP 91, 84143 Montfavet Cédex, France.
Secretary:	J. Batlle Sales, Departamento Biología Vegetal, Facultad de Farmacia, Universitat de València, Avda. Vicent Andrés Estellés, 48100 Burjasot, Valencia, Spain.
SUBCOMMISSION B:	
Chairperson:	Dr. C.J. Chartres, CSIRO Division of Soils, P.O.Box 639, Canberra City, ACT 2601, Australia.
1st Vice Chairperson:	K. Tovey, U.K.
2nd Vice Chairperson:	Dra.K.Oleschko, Colegio de Postgraduados, Centro de Edafologia, 56230 Chapingo, Mexico
3rd Vice Chairperson:	M.-A. Courty, Lab. de Science du Sol et d'Hydrologie, INA.PG, 78850 Grignon, France.
Secretary:	
SUBCOMMISSION C:	
Chairperson:	Dr.C.Valentin, ORSTOM, B.P. 11416, Niamey, Niger
1st Vice Chairperson:	S.C.F. Dechen, Escola Superior „Luiz de Queiroz", Av. Pádua Dias, 11 - Cx.P.9, 13400 Piracicaba - SP, Brazil
2nd Vice Chairperson:	E. Amezquita, Colombia
3rd Vice Chairperson:	V. Auzet, Univ. Louis Pasteur, Centre d'Etudes et de Recherches Eco-Géographique CNRS, 3, rue de l'Argonne, 67083 Strasbourg Cedex, France.
Secretary:	G. de Noni, ORSTOM, B.P. 5045, 34032 Montpellier Cedex 1, France
SUBCOMMISSION D:	
Chairperson:	Dennis Parkinson, University of Calgary, Department of Biological Sciences, Calgary, Alberta T2N IN4, Canada.
1st Vice Chairperson:	Isabelle Barois, Instituto de Ecología, A.Postal 63, 91000 Xalapa Veracruz, Mexico.
2nd Vice Chairperson:	James Curry, Faculty of Agriculture, UCD, Dept. of Env. Resource Management, Belfield, Dublin 4, Ireland
3rd Vice-Chairperson:	E. Garnier-Zarli, Université Paris XII, Laboratoire Biologie des Sols et des Eaux, Avenue du Général de Gaulle, 94000 Creteil, France
Secretary:	Jürgen Kühle, ITEC GmbH, Grimlinghauser Str. 21, 40221 Düsseldorf, Germany
SUBCOMMISSION E:	
Chairperson:	P.K. Khanna, CSIRO, Division of Forest Research, P.O.Box 4008, Queen Victoria Terrace, Canberra, ACT 2600, Australia
1st Vice-Chairperson:	A. Schulte, Germany
2nd Vice-Chairperson:	
3rd Vice-Chairperson:	J. Ranger, INRA, 54280 Champenoux, France
Secretary:	

SUBCOMMISSION F:
Chairperson: K.J. Beek, ITC, P.O.Box 6, 7500 AA Enschede, The Netherlands.
1st Vice-Chairperson:
2nd Vice-Chairperson:
3rd Vice-Chairperson: P. Brabant, ORSTOM, CS 2, 213, rue Lafayette, 75480 Paris Cédex 01, France

Secretary:

SUBCOMMISSION G:
Chairperson: D.C. Adriano, Savannah River Ecology Lab., Savannah River Site Bldg. 737A, Aiken, S.C., USA

1st Vice-Chairperson
2nd Vice-Chairperson:
3rd Vice-Chairperson: J. Berthelin, CNRS, Centre de Pédologie Biologique, UPR 6381, 17, rue Notre Dame des Pauvres, BP 5, 54501 Vandoeuvre les Nancy.

Secretary:

WORKING GROUP AS:
Chairperson: S.Sadio, ISRA/ORSTOM, B.P. 1386, Dakar, Senegal.
WORKING GROUP CR:
Chairperson: D.A. Gilichinsky, Inst. of Soil Science & Photosynthesis, Pushchino, Moscow District 142292, Russia.

WORKING GROUP DE:
Chairperson: A. Souirji, rue de la Ville 2, 5660 Couvin, Belgium.
WORKING GROUP DM:
Chairperson: Prof.Dr.M.F.Baumgardner, Dept. of Agronomy, Purdue Univ., West-Lafayette IN 47907, USA.

WORKING GROUP FA:
Chairperson: P. Sequi, Istituto Sperimentale per la Nutrizione delle Piante, Via della Navicella 2-4, 00184 Roma, Italy

WORKING GROUP LI:
Chairperson: Dr.J.Dumanski, Land Resources Research Institute, Agric. Canada, Ottawa, Ontario, Canada K1A 0C6.

WORKING GROUP MO:
Chairperson: Prof.Dr.P.M.Huang, Univ. of Saskatchewan, Dept. of Soil Science, Saskatoon, Sask., Canada S7N OWO.

WORKING GROUP MV:
Chairperson: Prof.Dr. R.J. Wagenet, Dept. of SCAS, Bradfield Hall, Cornell University, Ithaca, NY 14853-1901, USA.

WORKING GROUP PM:
Chairperson: Prof.Dr. A.B. McBratney, Dept. of Agric. Chem.&Soil Sci., A03 Ross St., The University of Syndey, NSW 2006, Australia.

WORKING GROUP PP:
Chairperson: Prof.Dr.J.A.Catt, Rothamsted Experimental Station,Soil Science Department, Harpenden, Herts, AL5 2JQ, United Kingdom.

WORKING GROUP PS:
Chairperson: Dr. Tasnee Attanandana, Dept. of Soil Sci., Faculty of Agric., Kasetsart Univ., Bangkok, 10903, Thailand

WORKING GROUP PT:
Chairperson: Dr. J. Koolen, Dept. of Soil Tillage, Wageningen Agric. University, Diedenweg 20, 6703 GW Wageningen, The Netherlands.

WORKING GROUP RB:
Chairperson: Dr. J. Deckers, Wildenhoge 13, 3020 Winksele, Belgium.
WORKING GROUP RS:
Chairperson: Dr. D. Mulders, Dept. of Soil Science & Geology, Wageningen Agric. University, P.O.Box 37, 6700 AA Wageningen, The Netherlands.

WORKING GROUP RZ:
Chairperson: Dr. P.J. Gregory, Dept. of Soil Science, Univ. of Reading, Whiteknights, P.O.Box 233, Reading, RG6 2DW, U.K.

WORKING GROUP SG:
Chairperson: Prof.Dr.J.Låg Dept. of Soil Science - AUN, P.O.Box 28, 1432 As-NLH, Norway.

WORKING GROUP SP:
Chairperson: Prof.Dr.P.J.Wieringa, Univ. of Arizona, Soil & Water Science, Tucson AZ 85721, USA.

WORKING GROUP US:
Chairperson: Dr. J. Celecia, Division of Ecological Sciences, UNESCO, 75700 Paris, France.

STANDING COMMITTEE ON STATUTE AND STRUCTURE (CSS):
Chairperson: Prof.Dr.P.B.Tinker, GCTE Associate Project Office, Deptmt. of Plant Sciences, University of Oxford, South Parks Road, Oxford OX1 3RB, U.K.

STANDING COMMITTEE ON INTERNATIONAL PROGRAMMES (CIP):
Chairperson: Dr. J. Kimble, SCS/NSSC, Federal Bldg., Room 152, 100 Centennial Mall North, Lincoln, NE 68508-3866, USA.

STANDING COMMITTEE ON STANDARDIZATION (CST):
Chairperson: Dr. S. Nortcliff, Dept. of Soil Science, Univ. of Reading, Whiteknights, P.O.Box 233, Reading RG6 2DW, U.K.

STANDING COMMITTEE ON BUDGET AND FINANCES (CBF):
Chairperson: Prof.Dr.W.R. Gardner, College of Natural Resources, Univ. of California, Berkeley, CA 94720, USA.

STANDING COMMITTEE ON EDUCATION IN SOIL SCIENCE (CES):
Chairperson: Prof.Dr. M. Dosso, CNEARC, 1101 Av. Agropolis, B.P. 5098 Montpellier Cédex, France.

STANDING COMMITTEE ON THE HISTORY, PHILOSOPHY AND SOCIOLOGY OF SOIL SCIENCE (CHP):
Chairperson: Prof.Dr. D.H. Yaalon, Institute of Earth Sciences, Hebrew University, Givat Ram Campus, Jerusalem 91904, Israel.

ISSS-COMMITTEES AND REPRESENTATIVES

Committee on Statute and Structure (CSS), to ensure correct application of Statutes and Bylaws of ISSS, and to propose changes in the organizational structure as required.

Chairman:	Prof.Dr. P.B. Tinker, GCTE Associate Project Office, Department of Plant Sciences, University of Oxford, South Parks Road, Oxford OX1 3RB, U.K.
Members:	Prof.Dr. W.E.H. Blum (Austria), Dr. S. El-Swaify (USA), Dr. N.N. Goswami (India), Prof.Dr. K.H. Hartge (Germany), Prof. Dr. K. Kyuma (Japan), Dr. F.N. Muchena (Kenya), Prof.Dr. I. Pla-Sentis (Venezuela), Dr. W.G. Sombroek (The Netherlands) and Prof.Dr. G. Varallyay (Hungary).

Committee on International Programmes (CIP), to liaise with international organizations and to promote joint programmes.

Chairman:	Dr. John M. Kimble, USDA-NRCS-NSSC, Federal Bldg. Room 152, 100 Centennial Mall North, Lincoln, NE 68508-3866, USA
Members:	Prof.Dr. A. Aguilar Santelises (Mexico), Dr. I.P. Abrol (India), Dr. R.W. Arnold (USA), Prof.Dr. W.E.H. Blum (Austria), Prof.Dr. A.M. Elgala (Egypt), Dr. A. Gennadiev (Russia), Dr. D.J. Greenland (UK), Prof.Dr. K. Kyuma (Japan), Dr. H.U.Neue (Philippines), Prof.Dr. P.A. Sanchez (USA), Prof.Dr. H.W. Scharpenseel (Germany), Dr. W.G. Sombroek (The Netherlands), Prof. J.W.B. Stewart (Canada), Prof.Dr. P.B. Tinker (UK), Dr. G. Vachaud (France), Prof.Dr. G. Varallyay (Hungary), Prof.Dr. D.H. Yaalon (Israel).

Committee on Standardization (CST), to liaise with the International Standardization Organization (ISO, Geneve-Switzerland) and its Technical Committee on Soil Quality (ISO/TC 190, NNI, Delft, The Netherlands).

Chairman:	Dr. Stephen Nortcliff, Dptmt. of Soil Science, PO Box 233, Whiteknights, The University of Reading, Reading, RG6 6DW, UK
Members:	vacancy (Comm.I), Prof. A.L. Page(USA, Comm.II), vacancy (Comm.III), Prof. K. Syers (Thailand, Comm.IV), vacancy (Comm. V), Y.P. Kalra (Canada, Comm.VI), vacancy (Comm.VII), vacancy (Comm. VIII), Prof. Somsri Arunin (Thailand, Subcomm.A), Dr. W. McDonald (Australia, Subcomm.B), Prof. R. Lal (USA, Subcomm. C), Prof. L. Brussard (Netherlands, Subcomm.D), Dr. K.-J. Meiwes (Germany, Subcomm E), vacancy (Subcomm. F), vacancy (Subcomm. G).

Committee on Budget and Finances (CBF), instead of ad-hoc committees at Congresses.

Chairman:	Dr. W.R. Gardner, College of Natural Resources, Univ. of California, Berkeley, CA 94720, USA.
Members:	Prof.Dr. W.E.H. Blum (Austria), Dr. D. Gabriels (Belgium), Dr. P.U. Luescher (Switzerland), Dr. W.G. Sombroek (The Netherlands) and one representative of the regional Society of Africa, East/Southeast Asia and Latin America.

Committee on Education in Soil Science (CES), with particular attention to secondary school/college level

Chairwoman:	Prof.Dr. M. Dosso, CNEARC, B.P. 5089, 1101 Av. Agropolis, 34033 Montpellier, France.
Members:	to be defined

ISSS Representatives in Committees/Commissions of International Organizations:

ICSU-SCOPE	Scientific Committee on Problems of the Environment: Dr. F. Fournier (France).
ICSU-CASAFA	Inter-Union Commission on the Application of Science to Agriculture, Forestry and Aquaculture: Prof.Dr. W.E.H. Blum (Austria).
ICSU-IBN	International Biosciences Networks: Prof.Dr. P.A. Sanchez (USA).
ICSU-IGBP	International Geosphere-Biosphere Programme: Prof.Dr.H.W. Scharpenseel (Germany).
ICSU-COSPAR	Committee on Space Research: Dr. Karale (India).
ICSU-CODATA	Committee on Data for Science and Technology: Prof.Dr. M.F.Baumgardner (U.S.A.).
IUBS-UNESCO-TSBF	Prof. Dr. H.W. Scharpenseel (Germany)

ACTIVITIES OF COMMISSIONS AND WORKING GROUPS
ACTIVITÉS DES COMMISSIONS ET GROUPES DE TRAVAIL
AUS DER TÄTIGKEIT VON KOMMISSIONEN UND ARBEITSGRUPPEN

World Reference Base for Soil Resources (WRB)
Steering Committee Meeting, Leuven, Belgium, January 26/27, 1995

A WRB Steering Committee has been set up to coordinate the activities of the ISSS Working Group WRB. Its main objective is to streamline WRB meetings and to make final decisions on issues which have been discussed at length during plenary sessions of the WRB.

The first WRB Steering Committee meeting was held at the Institute of Land and Water Management of the Catholic University of Leuven. In the first place the mission of the WRB was discussed. Concern was voiced on the fact that WRB is getting bogged down as yet another rather complicated soil classification system. Solutions to avoid such development were proposed and discussed at length.

WRB Steering Committee meeting at KU Leuven, January 1995
From left to right: J. Deckers, B. Volkov, R. Dudal, F. Nachtergaele, A. Ruellan, E. De Pauw, Gong Zitong, J. Hollis, O. Spaargaren

The meeting noted a good response of soil scientists world wide on the WRB Draft document which was handed out during the 15th ISSS World Congress of Soil Science at Acapulco, Mexico. Also special reviewers have gone through great lengths to comment on specific chapters of the WRB. Reviewers for the remaining chapters of the WRB were identified. Additional copies of the draft WRB have been forwarded to most developing countries in the world with the request to test the system and to give feed-back.

A working programme was established for the next four years, aiming at the 16th ISSS World Congress of Soil Science at Montpellier, in 1998. A WRB meeting was hosted by Prof. H. Blume at the University of Kiel, Germany from April 4-6, 1995. This meeting focused on (i) the steppe soils (Chernozems, Kastanozems, Phaeozems), (ii) the Andosols; (iii) the Cryosols and (iv) the Cambisols. After this meeting a large task lies ahead to revise the WRB in the light of all the comments which are being sent from all over the world. The WRB will then come into a testing phase. As of 1996 an attempt will be made to hold WRB meetings in places suitable for field verification of the system. Plans are on the way to organize such a testing session for the WRB in South Africa in 1996.

Prof. J. Deckers, Chairman, ISSS WG-RB

INTERNATIONAL SYMPOSIUM ON „THE SCIENCE OF COMPOSTING"

Bologna, Italy, May 30 - June 2, 1995

More than 500 scientists from 40 countries participated in the International Symposium on „The Science of Composting", sponsored by the European Commission, Caviro (Faenza, Italy) and ORCA, Brussels, with the active collaboration of the Working Group „Soil Organic Fertilizers and Amendments" of the International Society of Soil Science. A large number of scientists from abroad participated in this event, underlining the importance ascribed to it by the international scientific community.

About 120 scientific papers were presented orally during plenary and parallel sessions.

The opening session was devoted to introductory reviews on the role of composting in waste management and in sustainable agriculture, taking into account also national and international policies, legislation, and technological projects.

A special session was devoted to principles and practice of composting processes. Related topics included composting plant design, environmental impact, particular problems in the composting of different materials and the illustration of a new composting plant realized within the research programs of the European Commission.

The peculiarity of starting materials in influencing the composting processes and their management was the leading subject of another session. Among the starting materials considered, the programme included ligno-cellulosic compounds, sludges and slurries, coal fly and bottom ash, olive-mill waste waters and other agricultural and industrial wastes.

Another session included papers related to the quality of compost and its assessment. Many papers considered the techniques used to assess compost stability; others examined the relation of the type of composting to agronomic or other selected properties. A number of scientists emphasized the problems arising from the presence of heavy metal contents and of pathogenic micro-organisms or different phytohygienically important constituents.

The state of art of composting was the theme of many review and research papers. National and regional experiences were illustrated and discussed. Other papers considered aspects of composting which could be included as essential parts of an integrated system of waste management. A round table with discussion and comparison of different legislations on compost production and use was especially animated. The illustration of U.S. Environmental Protection Agency regulations was deeply appreciated and approved by most participants; unfortunately, they are not yet assimilated, or perhaps digested, by European policy makers.

A session concerning the use of compost was particularly rich in papers and discussions. Among the topics debated, the use of composts to suppress plant diseases should be mentioned, as well as their use to supply plant growing media, to recycle organic matter, in the framework of land reclamation projects, and so on. Further sessions were devoted to bioremediation, including the use of compost to control hazardous wastes and to reclaim contaminated soils, and to the composting design, with particular reference to progresses in composting plant technology. Marketing and economy matters were also discussed. After the final reports, conclusions and recommendations, the last day was devoted to a technical visit to the new Caviro composting plant in Faenza.

A selection of the papers delivered at the congress will be published within a few months by a British publishing house.

P. Sequi, Rome

INTERNATIONAL SYMPOSIUM ON SALT-AFFECTED LAGOON ECOSYSTEMS (ISSALE-95)

Report and Recommendations

The Universitat de València, Estudi General (Spain) and Subcommission A (Salt Affected Soils) of the International Society of Soil Science, organized an „International Symposium on Salt-Affected

Lagoon Ecosystems" in Valencia, 18-25 September 1995, at the Facultad de Ciencias Económicas y Empresariales of the University

The Symposium was attended by 129 participants representing 30 countries: Argentina, Australia, Austria, Brazil, Bulgaria, Colombia, Costa Rica, China, Egypt, France, Germany, Hungary, Indonesia, Iraq, Iran, Italy, Kenya, Mexico, Pakistan, Philippines, Portugal, Rumania, Russia, Spain Sweden, Thailand, The Netherlands, USA, Uzbekistan and Yugoslavia. FAO and UNEP were represented at the Conference. ISSS was represented by its Secretary-General.

On 18 September, after the registration of the participants, the Opening Ceremony was held at the Paranimfo de la Universitat de València, Estudi General, where the Authorities of the Comunidad Valenciana, the Spanish Government and the University, as well as the representatives of FAO, UNEP and the Secretary-General of ISSS addressed the meeting. It was followed by 6 plenary lectures: one on the 30 years activity of the Subcommission A (Salt Affected Soils), two on basic theoretical questions of soil science and three on general overviews on soil salinity and its management in lagoons and coastal areas.

53 papers were delivered in total on the following topics:

- Different types of salt affected lagoons, their ecology, genetics, soil properties and utilization;
- Salt affected soils and lands, genesis, mapping, management;
- Irrigation and groundwater quality and their effects on agricultural and environmental management.

At the same time, 45 posters were exhibited.

On the last day of the meeting, reviews and evaluations of the oral and poster presentations were given and general discussion took place. During the discussions, the importance of further detailed studies of lagoon ecosystems from both a principal and a theoretical point of view of soil science/ecology and relating to the practical land use aspects, was underlined. The completion of the up-to-date mapping of all the salt affected soils of the world and studies concerning the sustainability of soil amelioration projects, based on wide international cooperation, were initiated.

The volume of extended summaries of all submitted papers was published and it was distributed among the participants before the Symposium. The text of the presentations will be published in full length in a separate volume.

On 20 September, participants took part in a professional excursion to the Natural Park of La Albufera and visited an area of cultivated rice fields. A demonstration on sampling tools and measurement devices was also arranged.

At the business meeting of the Subcommission, the following points were on the agenda:

- Information on the participation of the Subcommission in the FAO/UNEP/ISSS Cooperative Project on „Integrated Management for Sustainable Use of Salt Affected Soils" and on international conferences in 1995 and 1996, where the Subcommission will act as co-organizer, or will be represented by one of its officers.
- Preliminary proposal of Professor Abdelmonem Elgala (Ain Shams University, Cairo, Egypt) to organize the next International Symposium on „Sustainable Use of Salt Affected Soils in Arid Ecosystems" in Cairo in September 1997.

After the Symposium, a three-day excursion took place. Participants visited coastal and inland salt affected lagoon ecosystems and intensive agricultural areas in the Communidad Valenciana. The programme of the excursion was completed with sightseeing tours and the visit of archeological excavations. Receptions were given to the participants by the city councils of the visited localities.

The participants of the Symposium expressed their sincere thanks to the host institution, particularly to the Organizing Committee of the Meeting, headed by Prof. Jorge Batlle-Sales, for the excellent preparation and organization of the Symposium, and for the exceptional hospitality which was offered to the guests.

Ye.I. Pankova and I.N. Ljubimova
Moscow, Russia

REPORTS OF MEETINGS
COMPTE-RENDUS DE RÉUNIONS
TAGUNGSBERICHTE

International Symposium on Biological Nitrogen Fixation Associated with Rice

The Symposium was held in Dhaka, Bangladesh, from November 28 to December 02, 1994, organized by CESTI, Embassy of France, Alliance Française de Dhaka, Jahurul Islam Complexes, Bhagalpur-Bajitpur, in collaboration with the University of Dhaka, the Ministry of Agriculture and the Ministry of Science and Technology, Govt. of Bangladesh.

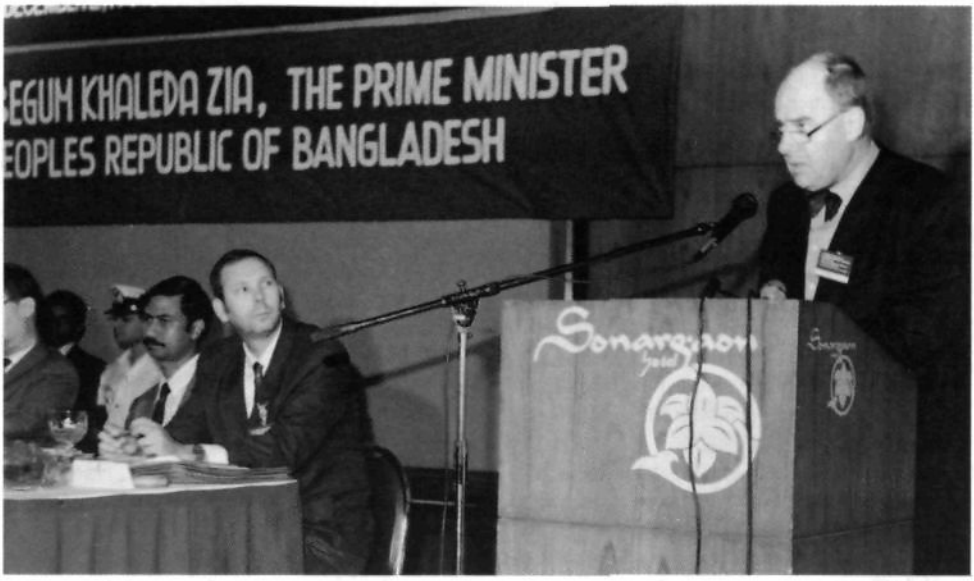
The objective of the symposium was to bring together scientists working in different fields of nitrogen fixation associated with rice, to stimulate interdisciplinary discussion about the basic principles of chemical and biological nitrogen fixation in paddy fields and to evaluate possibilities to increase agricultural productivity through biological nitrogen fixation.

Opening ceremony of the Symposium, from left to right: W.E.H. Blum, Secretary-General ISSS, E. Ahmed, Vice-Chancellor of Dhaka University, M.A. Mannan, State Minister of Science and Technology, Begum Khaleda Zia, Prime Minister, Govt. of the People's Republic of Bangladesh, J.M. Lacombe, Ambassador of France, M. Rahman, Coordinator of the Symposium, and T. Heulin, CNRS France

The need for such a symposium had increased over the last decades in view of an increased use of chemical fertilizers and pesticides contributing to the degradation of the environment and causing health hazards. Throughout the world, scientists and decision makers seeking biological means for increasing crop production and maintaining soil environments free from pollution.

The symposium was formally inaugurated by the Prime Minster, Govt. of the People's Republic of Bangladesh, Begum Khaleda Zia. The State Minister for Science and Technology, Prof. M.A. Mannan; the Vice Chancellor of the Dhaka University, Prof. Emajuddin Ahmed, The Ambassador of France, Mr. J.M. Lacombe. Prof. Dr. Winfried Blum, Secretary-General of the International Society of Soil Science and Dr. T. Heulin, Research Director, CNRS, France, also spoke on this occasion. The function was presided over by the President of the Organizing Committee of the symposium, Prof. Z.N. Tahmida Begum and Dr. Mustafizur Rahman, coordinator of the symposium welcomed all participants.

A keynote speech was delivered by Prof. Dr. J. Balandreau, CNRS, France. After that, a session was dedicated to the memory of the late Dr. J.M. Day. Further sessions were concentrating on (i) rhizobia-legume symbiosis, (ii) green manuring crops in rice fields, (iii) rice root associated soil microflora, (iv) application of biotechnology in rice culture, (v) azolla anaebina association and (vi) blue-green algae.



Prof. W.E.H. Blum addressing the audience at the opening ceremony of the Symposium

A closing session was conducted by Dr. Mustafizur Rahman and concluded with the following resolution:

1. An Asian network on BNF associated with rice will be formed in the next BNF non-legume meeting in Pakistan. Dr. K.A. Malick was requested to take the necessary action.
2. The organizing committee of the symposium may continue follow-up research programs in this field. They were requested to co-opt scientists from Jahangir Nagar University and Bangladesh Agricultural University in the organizing committee.
3. Linkage and coordination with the International Scientific Committee and international agencies should be maintained.
4. The International Scientific Committee will help to develop and improve BNF technology in rice farming systems in Bangladesh.

On the last day of the symposium, a field trip was organized at Jahurul Islam Complexes, Bhagalpur-Bajitpur sponsored by Mr. Ahurul Islam. A lecture on soils of Bangladesh was also given by Prof. M.S. Hussain of Dept. of Soil Science, University of Dhaka and Mr. M. Idris of the Soil Resource Development Institute, Dhaka, Bangladesh.

A Souvenir and an Abstract Book was published. The proceedings of the symposium will be published by Elsevier Science, The Netherlands.

M. Rahman, Bangladesh

INTERNATIONAL SYMPOSIUM DESERTIFICATION IN DEVELOPED COUNTRIES - WHY CAN'T WE CONTROL IT?

Tucson, Arizona/USA

From 24-29 October 1994, the International Symposium 'Desertification in Developed Countries - Why Can't we Control it?' was held. About 150 scientists and land managers from 15 countries participated.

The 35 oral papers concentrated on 1) social, economic, political and institutional factors that have resulted in successful interventions, 2) desertification assessment and systematic observations

(monitoring), and 3) techniques that have been tried to halt or reverse desertification processes. Additionally, about 30 poster presentations were displayed. The papers and posters will be published in the journal „Environmental Monitoring and Assessment" and will also be available for purchase from the publisher in 1995.

Six working groups met to discuss and make recommendations, each on a single topic of importance to combatting desertification. The working groups addressed the following topics: Common indicators; Innovative approaches; Consistent problems; and a symposium and workshop in 1997.

The most important recommendations could be summarized as follows:

- Develop good scientific databases for indicators before using them to establish thresholds within the continuum for evaluating desertification. The most important indicators have been identified in the area of Nutrient availability, Water budget, Energy balance and Biological diversity.
- Base thresholds mostly on scientific understanding of the ecosystem, but also include social factors and economic values in the evaluation.
- Address simultaneously both the drivers of processes which promote desertification and the scientific stressors.
- Increase support for combatting desertification among land users, land managers, consumers, and other publics through education, and, where possible, changes in the economic valuation of dryland resources.
- Decentralize control over natural resource use and provide more local involvement and control. Encourage collaborative „grassroots" movements. In collaboration with local communities, examine policy impacts and revise them where necessary.
- Adopt a participatory approach to management decision-making among land managers, agencies, policy makers and scientists, taking into consideration local community values.
- Ensure that research is performed by multidisciplinary teams in collaboration with local communities.
- Place much greater emphasis on application of data relating to desertification and less emphasis on basic research.
- Give greater consideration to alternative land uses that are beneficial and sustainable.
- Develop new technologies and products for restoration, maintenance and improvement of functions and systems in dryland areas and share this information worldwide.
- Develop long-term data sets using new technologies to detect trends that can be extrapolated into the future. Considering different spatial and temporal scales, these techniques could be used for intensive monitoring, geographical information systems, expert systems, and indicators. To increase their usefulness, back them up with models that provide insight into ecological processes.
- Foster mechanisms for the communication and interchange of desertification research and other information, including an Internet desertification newsletter, and the use of mass media communication as a major strategy to combat desertification.
- Design research programs to establish the respective roles of climate and human activity, and a coherent, multidisciplinary theory to describe desertification processes.

Furthermore, it has been recommended to organize a Symposium and Workshop in 1997 with an overall objective of providing a significant exchange of ideas between 1) the developers of science and technology in understanding and combatting desertification, and 2) the local community level decision-makers who must work with the problem on a day-to-day basis. The symposium will have the title: „Preventing Desertification: Connecting Science with Community Action".

For further information please contact:

Mr. Beaumont C. McClure
Bureau of Land Management
Arizona State Office
PO Box 16563
Phoenix, AZ 85011
USA
fax: (602) 650-0298

3RD INTERNATIONAL MEETING ON RED MEDITERRANEAN SOILS

Chalkidiki (Greece), May 21-26, 1995

The meeting was organized by the Soil Science Society of Greece, Agricultural University of Athens, and Aristotle University of Thessaloniki and supported by the General Directorate of Research and Technology, Greek Ministry of Industry, Energy and Technology; Geotechnical Chamber of Greece in Thessaloniki; Fertilizers of New Karvali in Kavala; Velestino blended fertilizers; SINEL in Athens; Chemical Industry of Northern Greece; Sugar Industry; Sulfur Hellas; and AGROLKAB. Over 90 foreign delegates from 16 Mediterranean countries participated in the meeting. About 50 delegates represented Greece. The single largest foreign group was from Bulgaria. The meeting took place in the Kassandra Hotel at the Aegean Sea.

Field examination of a profile *(Photo Dr. H. Eswaran)*

The meeting started with the welcome address by A. Simonis, President of the Soil Science Society of Greece and this was followed by the opening address by W.E.H. Blum, the Secretary-General of ISSS and an introductory address by N. Yassoglou (Chairman of the Local Organizing Committee and Member of the Working Group). The topics that were discussed during the meeting centred around sustainability of farming, soil fertility and use of fertilizers, water management, climate change, formation of secondary carbonates, land degradation and land use capability, mineralogy and mineral interactions with pollutants, horizonation and horizon designation, soil classification (FAO, Taxonomy, etc.), soil erosion, and soil conservation.

It was recognized that there is an urgent need to develop techniques to measure soil quality or land use capability in relation to the sustainability of farming and other activities in Mediterranean areas. The current most interesting aspect of the Red Mediterranean soils is the land degradation. The task of controlling land degradation in the Mediterranean Red soil areas is a formidable one. The participants were enthused with various aspects of the Red Mediterranean soils during the meeting.

The organizers made the meeting an unforgettable event. In addition to short papers and abstracts published by the local organizers, it was agreed that reviewed and accepted papers would be

Participants of the meeting

published in a special issue of Catena (Elsevier Publ.) to make aware of the international media. After the meeting in Adana, Turkey, it was confirmed that there is strong interest to continue and organize regular meetings in a Mediterranean country. Bulgarian delegates made the request to organize the next meeting in Plovdiv in May 1997. This request has received very strong support from the participants. Considering the climate in the Mediterranean region, participants also expressed the view that May will be the best month to organize the regular Red Mediterranean meetings.

A.R. Mermut, Saskatoon, Canada

WORKING DAY ON AGRICULTURE AND POLLUTION TARANTO, ITALY, MAY 26, 1995

A restricted group of well selected and skilled scientists has attended a working day devoted to the topic „Agriculture and Pollution", an initiative of the Working Group „Soil organic fertilizers and amendments" of the ISSS, under the co-ordination of its chairman Prof. Paolo Sequi.

The morning session dealt with the possibility of solving the problems through agriculture, and included three invited lectures:

i. Recycling of agricultural, industrial and urban wastes, by Y. Chen, Department of Soil and Water Sciences, Faculty of Agriculture, the Hebrew University of Jerusalem, Rehovot, Israel.

ii Criteria for assessing suitability of organic wastes for soil application, by J. Cegarra, Department of Soil and Water Conservation and Organic Waste Management, Centro de Edafología y Biología Aplicada del Segura, CSIC, Murcia, Spain.

iii Importance of integrated plant nutrition for sustainable societies, by P. Sequi, Experimental Institute for Plant Nutrition, Rome, Italy.

In the afternoon attention was focussed on some topics presently studied within the PANDA project of research of the Ministry of Agricultural, Food and Forestry Resources. Many aspects of this project can actually be of interest for the ISSS too, since its main objective is the protection of soil, the more fragile environmental compartment in the Mediterranean area. And in fact PANDA is divided into three subprojects dealing with the assessment of land vulnerability, the experimentation on new cropping systems and the related analytical investigations by means of advanced techniques.

The working day was concluded with a session on the topic „States of art" with the following lectures:

i Mobility of chemicals in soil, by E. Pfefferkorn, Institut Charles Sandron, Strasbourg, France

ii Modelling interactions between agriculture and environment as a basis for regional sustainable development, by W.E.H. Blum, Institute of Soil Science, University of Agriculture and Natural Resources, Vienna, Austria.

iii Assessment of land vulnerability, by R. Francaviglia, Experimental Institute for Plant Nutrition, Rome, Italy.

The initiative has taken place within the framework of MEDITERRANEANCHEM, an International Conference on Chemistry and the Mediterranean Sea, organized jointly by the Italian Chemistry Society (SCI), the National Council of Research (CNR) and the Interuniversitary Consortium Chemistry for the Environment (INCA), under the auspices of many international and national institutions such as the Commission of the European Communities, Ministries, Universities, and Local Governments of Apulia among others.

Further information can be obtained from:

Dr. Rosa Francaviglia
Experimental Institute for Plant Nutrition
Via della Navicella, 2-4
100184 Rome, ITALY
Fax: +39-6-7005711

COSTED-IBN EXECUTIVE COMMITTEE (CI-EC) MEETING MEXICO CITY, 16-18 AUGUST 1995

The Committee on Science and Technology in Developing Countries and the International Biosciences Networks (COSTED-IBN), constitute a Scientific Committee of ICSU and is co-sponsored by UNESCO. COSTED-IBN is charged specifically with linking science and technology to development. Its general objective is therefore to act as an advisory group to ICSU and UNESCO on the range of its activities in science and technology for developing countries, their potential applications to social and economical development and how these relate to other international development efforts.

This COSTED-IBN meeting was a success. Approximately 30 persons participated representing ICSU, COSTED-IBN, UNESCO, TWAS and several other related international organizations, including ISSS. The meetings were chaired by Prof. M.G.K. Menon CI-EC chairman, Prof. R.R. Daniel, Scientific Secretary and Treasurer, Dr. A. Badron, UNESCO, Mrs. Julia Marton Lefèvre, ICSU. The meeting was held at the Unidad de Seminarios of the Universidad Nacional Autónoma de México (UNAM). The programme for the meeting consisted of a half-day workshop on South-South cooperation in science and reports/discussions on COSTED-IBN activities.

Prof. Andrés Aguilar, 1st Past President, ISSS
Mexico

NEWS FROM REGIONAL AND NATIONAL SOCIETIES
NOUVELLES DES ASSOCIATIONS RÉGIONALES ET NATIONALES
BERICHTE DER REGIONALEN UND NATIONALEN GESELLSCHAFTEN

AFRICAN SOCIETY OF SOIL SCIENCE (ASSS)

During the 3rd ASSS Conference in Ibadan/Nigeria in August 1995, a new Executive Committee was elected:

President:	Prof. M. Rasheed, Egypt
Vice-Presidents:	Prof. V. da Costa, Kenya
	Dr. L. Thiombiano, Burkina-Faso
	Dr. S. Mughogho, Malawi
Secretary-General:	Dr. C.R. Obatolu, Nigeria
Treasurer:	Prof. B. Lalljee, Mauritius

VII NATIONAL CONGRESS OF SOIL SCIENCE (CONACISU VII)

Sociedad Chilena de la Ciencia del Suelo
May 10-13, 1995, Temuco (Chile)

The VII National Congress of Soil Science (CONACISU VII) was held at Temuco (Chile), on May 10-13, 1995, organized by the Sociedad Chilena de la Ciencia del Suelo and the Universidad de La Frontera.

The CONACISU VII comprised about 90 oral and poster presentations and was attended by more than one hundred soil scientists (most of them from Chile, but also a considerable number of Argentineans and representatives of the following countries: Brazil, France, Spain, Uruguay and Venezuela). There were six oral sessions (plus two additional poster sessions), introduced by the following plenary conferences: "Bioassay technique to differentiate soil acidity tolerance in plant species" by Dr. V.C. BALIGAR; "Investigación en Química de Suelos y su relación con la Química Ambiental" by Dr. E SCHALSCHA; "Utilization of ion-selective microelectrodes for measuring net fluxes occurring at the surface roots" by Dr. C. PLASSARD; "Consequences de la mycorrization sur le fonctionnement physicochimique de la rhizosphère" by Dr. J.C. ARVIEU, and "Ciclos biogeoquímicos y balances hídricos en sistemas naturales y seminaturales" by Dr. J.F. Gallardo. Two round tables were also held; the first on "Soil acidification and productivity", with the participation of Drs: E. VON BAER, D. SUAREZ, V.C. VALIGAR, F. BORIE, H. HAPPELT and, as convenor, Dr. H. ZUNINO; and the second one on "Soil conservation and sustainability", with the participation of Drs. C. CROVETTO, E. SCHALSCHA, J. GALANTINI; I. SALAZAR; J.F. GALLARDO, and as convenor, J.L. ROUANET.

Regarding the social events, the welcome cocktail, the friendly banquet, the closing session and the touristic-scientific field trip to the volcanic complex of Villarrica, should be mentioned; the latter ended with the visit of a thermal residence, where the attendants to the VII CONACISU had a very warm reception.

The following officers of the Chilean Soil Science Society were nominated during the Congress:

- President: I. SALAZAR QUINTANA;
  Vice President: F. BORIE BORIE;
- Secretary: A. PAIRELONGUE

The next national congress, CONACISU VIII, will be held at La Serena (Chile), in August 1997; Prof. I.E. FERNANDEZ has been nominated chairman of this event.

I congratulate the organizing committee of the CONACISU VII on the success of this Congress and wish the new officers of the Sociedad Chilena de la Ciencia del Suelo good luck and success in the fulfilment of their tasks.

Juan F. Gallardo Lancho, Spain

ASSOCIACIÓN COSTARRICENSE DE LA CIENCIA DEL SUELO

The following officers were elected during the Annual Meeting of the Asociación Costarricense de la Ciencia del Suelo (ACCS), in December 1994:

President:	M.Sc. Floria Bertsch
Vice-President:	M.Sc. Freddy Sancho
Secretary:	M.Sc. Alvaro Segura
Treasurer:	Ing.Agr. Marco A. Ugalde
Voter I:	Ing.Agr. Carlos Henriquez
Voter II:	M.Sc. Rafael Mata
Voter III:	Lic. Mariela Bermúdez
Controller:	Ing. Agr. Fernando Mojica

Address:

M.Sc. Floria Bertsch
President, Costa Rica Soil Science Society
Centro de Investigaciones Agronómicas
Universidad de Costa Rica
San José, Costa Rica
Phone: (506) 224-3712
Fax: (506) 234-1627
E-mail: FBERTSCH@CARIARI.UCR.AC.CR

ASSOCIATION FRANÇAISE POUR L'ETUDE DU SOL (AFES)
FRENCH SOCIETY OF SOIL SCIENCE

La composition du bureau de l'AFES à compter du 6 juin 1995 est la suivante:

Président:	M. Marcel JAMAGNE
Vices-Présidents:	Melle Christine LE SOUDER
	M. Jacques DECROUX
Trésorier:	M. Daniel TESSIER
Secrétaire Général:	Mme Micheline EIMBERCK
Secrétaire Adjoint:	M. Denis BAIZE

L'adresse: AFES

INRA Domaine de Limère
avenue de la Pomme-de-Pin
45160 Ardon
FRANCE
Tel./Fax: +33-38-76-49-69

BIENNIAL CONFERENCE OF THE GERMAN SOIL SCIENCE SOCIETY
HALLE/SAALE, SEPTEMBER 2-9, 1995

From September 2-9, 1995, the DBG (Deutsche Bodenkundliche Gesellschaft) held their Biennial Conference in Halle an der Saale. More than 1000 participants and representatives of other European soil science societies took part in this event, organized by Prof. Körschens and Prof. Schilling. This was the first time after the German reunification in 1989 that this event was organized in a university town in the so called „new federal states", in the eastern part of the German Federal Republic.

The papers were published in two volumes (1488 pages), and an excursion-guide of the 11 excursions, including 59 profiles was printed two months before the Conference. The soil scientists of Halle who, under the guidance of Dr. Manfred Altermann, organized the excursions, look back on a long scientific experience and provided the participants with a good insight into the soils of the region. At this occasion, the largest continuous loess-Chernozem-region of Germany and its surroundings were presented.

Participants of the DBG Conference at an excursion

During the Conference, the seven commissions and many working groups discussed new results of their work. At the end of the session of Commission V, Prof. Stahr gave an interesting introduction to the new World Reference Base for Soil Resources (WRB). WRB is not a new international soil classification systems, but a basis for better correlation between national systems of soil classification. Its 30 major soil groups are similar to the legend of the FAO World Soil Map. Nevertheless, it is not easy to find correlations between WRB and the different supreme soil classes of other national systems. It will be a hard task to link all the different national systems with the WRB.

At the general assembly, where Prof. Blume was reelected President, Prof. Stahr invited the participants to take part in the next DBG Conference, which will take place in Konstanz in 1997. At this occasion, excursions around Lake Konstanz will be prepared by Prof. Stahr in cooperation with the universities of Hohenheim, Zürich and Freiburg.

Prof. Schwertfeger, Germany

SOIL SCIENCE SOCIETY OF POLAND

The Polish Society of Soil Science held its Conference in Wiktorów, near Bydgoszcz, from September 12 to 14, 1995. The theme of the Conference was „Physico-chemical properties of soil in aspect of their productivity and protection of agricultural environment". Eighteen oral papers and 28 posters covering the above problems were presented. During the field trips 7 profiles of different soil types were discussed. At this Conference, the delegates of the Polish Society of Soil Science elected the following new Executive Board for the period 1995-1999:

President:	Prof.Dr. Piotr Sklodowski
Vice-President:	Prof.Dr. Slawomir Gonet
Vice-President:	Prof.Dr. Stanislaw Baran
Secretary:	Dr. Józef Chojnicki
Treasurer:	Dr. Zbigniew Zagórski

Members:	Dr. Helena Dziadowiec, Dr. Adam Kaczor, Prof.Dr. Alojzy Kowalkowsky, Prof.Dr. Michal Licznar, Prof.Dr. Andrzej Mocek, Prof.Dr. Henryk Piascik, Prof.Dr. Stefan Skiba, Prof.Dr. Henryk Terelak, Dr. Teresa Wojcieszczuk

Chief Editor: Prof.Dr. Krystyna Konecka-Betley

Address of the Society:

Polskie Towarzystwo Gleboznawcze
ul. Wisniowa 61
02-520 Warszawa
POLAND

SOIL SCIENCE SOCIETY OF SRI LANKA

The following members were elected to the Soil Science Society of Sri Lanka for the period of 1995-96.

President:	Dr. Ranjith B. Mapa
Vice President:	Dr. J.D.H. Wijewardhana
Secretary:	Dr. K.A. Nandasena
Editor:	Dr. D.S.P. Kuruppuarachchi
Treasurer:	Mr. Anil Dassanayake
Committee Members:	Dr. A.N. Jayakody
	Mr. H.B. Nayakekorale
	Mr. H.A. Sumanasena
	Mr. S. Senarath
	Dr. Anura Dissanayake
	Dr. L.L. W. Somasiri

Address:

Soil Science Society of Sri Lanka
120/10, Wijerama Mawatha, Colombo 7, Sri Lanka
Phone (94) 691 681, E-mail: <mapa@agri.pdn.ac.lk>

The membership is open to any foreign soil scientist at a membership fee of US$ 20 for general membership and US$ 200 for life membership. The Journal of the Soil Science Society of Sri Lanka is available at US$ 10 per copy.

INTERNATIONAL RELATIONS
RELATIONS INTERNATIONALES
INTERNATIONALE BEZIEHUNGEN

ICSTI
International Council for Scientific and Technical Information
Conseil International pour l'Information Scientifique et Technique

ICSTI, affiliated with the International Council of Scientific Unions, is dedicated to increasing awareness of and accessibility to scientific and technical information. The Council represents information services, libraries and publishers who provide scientific and technical information on an international scale. It also includes representatives of the scientific community who both generate and use this information. Those interested in learning more about ICSTI's programmes may contact:

Marthe Orfus
Executive Secretary, ICSTI
51 boulevard de Montmorency
75016 Paris, FRANCE

Phone: +33-1-45-25-65-92
Fax: +33-1-42-15-12-62
Internet: icsti@paris7.jussieu.fr

At its 1995 General Assembly held at the European Patent Office, Rijswijk, the Netherlands, ICSTI elected the following officers to its Executive Board for the period of 1995-1998:

President	:	David RUSSON, the British Library, UK
Vice-President	:	Ben FOUCHÉ, CSIR, South Africa
General Secretary	:	Claude PATOU, INIST, France
Treasurer	:	John REGAZZI, Engineering Information, USA

The other elected members of the Executive Board are:

- CODATA
- The Royal Society of Chemistry, UK
- BIOSIS, USA
- Chemical Abstracts Service, USA
- Canada Institute for Scientific and Technical Information (CISTI)
- Elsevier Science, the Netherlands
- European Patent Office
- U.S. Department of Energy

Questel.Orbit, France, has been coopted.

Bob BARÉ of the European Patent Office was reappointed as Chairman of the Technical Activities Coordinating Committee.

WATER AND ENVIRONMENT
PART OF MIDDLE-EAST PLANNING

As part of the Middle-East Peace Plan's multi-country negotiations, water and environmental problems have been very important agenda items. To provide some of the technology transfer needed to help solve some of those problems for the fragile land ecological systems present in the arid Middle- and Near-East Countries, a „Regional Seminar on the Potential of Artificial Recharge of Ground Water" was convened at the University of Jordan in Amman. The regional seminar was sponsored by the Water and Environment Research and Study Center (WERSC) of the University in cooperation with the Jordanian Ministry of Water and Irrigation and the Canadian Embassy in Jordan. Dr. Muhammad R. Shatanawi, Director of WERSC, was General Chairman of the Seminar.

Seminar attendees included invited delegates from Bahrain, Egypt, Iraq, Lebanon, Oman, Palestine, Syria, and Tunisia; several speakers from the USA; representatives of WHO, UN FAO, UNDP, and USAID; and representatives of several Jordanian ministries. ISSS Life Member Ivan

Johnson, Consulting Soil/Water Engineer from Arvada, Colorado, presented the keynote speech „Artificial Recharge of Ground Water — A Guide to the State of the Art."

Following the seminar, a panel comprised of some of the attendees prepared a statement of recommendations. Several recommendations made regarding water policy were (1) reuse of wastewater should be an integral part of water planning and (2) selectivity of appropriate technology should fit with the socio-economic capabilities in each country and also the traditions followed in these countries. The panel made a number of technical recommendations specifying (1) development and use of standardized methods for exploration and recharge data collection, (2) training and coordination on projects between countries of the Middle East, and (3) pilot recharge projects be established in each country leading eventually to a regional network of recharge projects. Recommendations also urged international organizations to assist the Near-East countries in developing and implementing a comprehensive water resources management plan that included regional artificial recharge projects.

During the seminar, Johnson also described the program of the American Society of Civil Engineers to develop „Standard Guidelines for Artificial Recharge of Ground Water." Johnson chairs this standards committee and also is collecting, through a questionnaire, construction and operational details on artificial recharge projects throughout the world. Anyone desiring more information on the recharge standard or desiring the complete the recharge questionnaire should contact:

Ivan Johnson,
Soil-Water Consulting,
7474 Upham Court,
Arvada, CO 80003
Tel/Fax: 303-425-5610

An e-mail based soil erosion discussion list

As participants in some of the e-mail (electronic mail) based discussion lists which deal with Geographic Information Systems (e.g. GIS-L, IDRISI-L, etc.) we supposed that there must be an equivalent for themes related to soil erosion. However, after putting out an Internet „request for information", none of the world-wide „netlanders" could indicate where to find such a discussion list. So it seems a good idea to establish a discussion list for soil erosion.

The University of Trier, Germany (address given below) is well placed to act as host for this in two respects: first, a geo-information service using e-mail and FTP (File Transfer Protocol) has already been set up; second, the head of the Department of Physical Geography, Prof. Dr. G. Richter, is one of the founder members of the ESSC (European Society for Soil Conservation).

The list is a forum for all soil scientists, geomorphologists, geographers or environmental scientists interested in soil erosion and/or soil conservation. This might include field workers, laboratory workers, or modellers. Some discussion might be practically-based, for example concentrating on the relative efficiency of different conservation systems, or the practicalities of various rainfall simulators. Other themes could centre on the use of GIS with erosion models, on geostatistics or modelling erosion under changed climates. The list may even be used to advertise vacant posts! In the somewhat nucleated world of soil erosion researchers, such a discussion list could be a great aid in stimulating the interchange of knowledge.

To become a participant in the soil erosion discussion list, you must have access to e-mail. To join, send your address (including your e-mail address) to B. Bernsdorf via e-mail, fax or post (for details see below). You will then be placed on the distribution list, and the author will send confirmation of your registration by e-mail. After receiving this confirmation, each member of the discussion list will automatically receive all information sent to the list. After browsing this material, you can choose to participate in discussion which concerns a theme you are interested in, or ignore themes which are of no interest. Similarly, you can choose whether or not to ask questions that affect your business, or to help other participants by answering their questions. Note that personal correspondence with people you have met by means of the discussion list is only possible by by-passing the list; all communications are automatically sent to all list members. The soil erosion discussion list is made possible through the help of the University Computer Centre in Trier.

Bodo Bernsdorf
Applied Physical Geography
University of Trier
54286 Trier, GERMANY
E-mail: bb@uni-trier.de
OR:
bernsdor@pcmail.uni-trier.de
Tel: (+49)651/201-4524;
Fax: (+49)651/201-3976

David Favis-Mortlock
Environmental Change Unit
University of Oxford
1a Mansfield Road
Oxford OX1 3TB, UK
E-mail: david.avismortlock@ecu.ox.ac.uk
Tel: (+44)865-281180
Fax: (+44)865-281181

E-mail net of the soil chem group

An E-mail discussion group has been established for discussion of soil chemistry research and policy issues. To subscribe, contact listproc@soils.umn.edu with the message:

subscribe soil-chem your full name
A return message will confirm your subscription. For information, contact the same address with:
information soil-chem
or Paul Bloom, pbloom@soils.umn.edu.

Post messages to all subscribers to soil-chem@soils.umn.edu, but to not send subscription or personal messages to this address. To read the archived messages, use <gopher.soils.umn.edu>. The path to archive is Computer Information/General Information/Selected Electronic Mailing List Archives/Soil-chem Mailing List Archives soil-chem*/.

The ftp path is ftp.soils.umn.edu:pub/info/email-lists/soil-chem/*.

New Agroforestry Network

The African Network for Agroforestry Education (ANAFE) has been set up to strengthen the teaching of multidisciplinary approaches to land management in agroforestry in schools and training programmes.

The network is managed by the Education Programme at the International Centre for Research in Agroforestry (ICRAF), under a full-time coordinator. There are now 74 member countries and members of the network meet once every two years to decide on policy and long-term strategies.

Fellowships are available to pursue postgraduate degree programmes within Africa. The programme may be in any land-use discipline (agriculture, forestry, animal sciences, etc.), but the research component must be in agroforestry. Currently ANAFE has 17 postgraduate fellows.

Address:
ANAFE Coordinator
ICRAF
P.O.Box 30677
Nairobi, KENYA

FAO/UNEP/ISSS Cooperative Project on „Integrated Soil Management for Sustainable Use of Salt Affected Soils"

Needs

- To reduce the rate of soil salinization especially that caused by human activities (secondary salinization),
- To better utilize the salt affected soils of the world in more productive agriculture.

Outputs

- Established network for strengthening field experiments and dissemination of appropriate management practices in different regions; improvement of coordination among scientists, engineers and extension staff in participating countries; enhanced exchange and dissemina-

tion of information on the sustainable use of salt affected soils.
- Improved international and regional cooperation in scientific research for the use of salt affected soils in a more productive agriculture.
- Publication of a newsletter on Sustainable Productive Use of Salt Affected Habitats (SPUSH).
- Proceedings of the International Workshop on Management of Salt Affected Soils for Productive Agriculture. Plans for Research and Cooperation.

Activities
- To establish and operate experiments and demonstrations on pilot farms to develop integrated management practices for the sustainable use of salt affected soils in 12 countries.
- To prepare, publish and distribute a Newsletter.
- To organize an International Workshop on Integrated Soil Management for Sustainable Use of Salt Affected Soils
- To prepare technical background material for the Workshop and publish the Workshop Proceedings.

Follow-up

The Follow-ups will be: (i) application of the approaches and methods on the sustainable management and use of salt affected soils elaborated under this project through experimental activities/pilot farms under FAO projects on land resource management in other countries; (ii) and participating countries promoting the use of the elaborated approaches and methods.

Institutional Framework

The project is being implemented by FAO. All preparatory arrangements for holding the Workshop, including making the lists of participants, will be done in consultation between UNEP, FAO, ISSS and participating national institutions. FAO will provide technical, administrative and logistic support to the Network and the Workshop. ISSS (Subcommission on Salt Affected Soils) in cooperation with FAO and UNEP is responsible for the preparation, publishing and distribution of the Newsletter.

Evaluation

Desk evaluation, based on the extent and interest in the Network and the Workshop by the participating institutions/participants and the quality of the publication arising from the project will be undertaken by UNEP in cooperation with FAO (AGL).

(from SPUSH Newsletter, Vol.1, no. 1, June 1995)
See also under „New Publications" in this Bulletin.

APPOINTMENTS, HONOURS, PERSONAL NEWS
NOMINATIONS, DISTINCTIONS, INFORMATIONS PERSONNELLES
ERNENNUNGEN, AUSZEICHNUNGEN, PERSÖNLICHE NACHRICHTEN

Prof.Dr. Henryk Domzal became the ISTRO president at the 13th International ISTRO Conference in Aalborg, Denmark. Prof. Domzal is active in many organizations other than ISTRO including the International Soil Science Society, the Ukrainian Academy of Agricultural Sciences, the Lublin Science Society and the Polish Agrotechnical Science Society.

Dr. Brennan Soane and Ir. Cees van Ouwerkerk became the ninth and tenth Honorary members of ISTRO.

Prof. Donald D. Tyler, Professor of Soil Management of the University of Tennessee, Jackson, Tennessee, and member of ISSS, became fellow of the Soil and Water Conservation Society.

T.F. Shaxson, Independent Consultant, Dorset, England, received the Hugh Hammond Bennett Award of the Soil and Water Conservation Society.

Dr.Y. P. Kalra, Senior Soil Scientist at the Canadian Forest Service and President Elect of the Canadian Society of Soil Science, received a most prestigious award at the109th Annual Meeting of the Association of Official Analytical Chemists International in Nashville, Tennessee, in September 1995, for his comprehensive study, conducted under the AOAC International Validation Programme. Dr. Y.P. Kalra was supervising the project and was selected Methods Committee Associate Referee of the year 1995.

Prof.Dr. Karl-Heinrich Hartge, Honorary Member of the German Soil Science Society, **Prof.Dr. Hans-Peter Blume,** President of the German Soil Science Society and **Prof.Dr. W.E.H. Blum,** Secretary-General of the International Society of Soil Science, have been awarded the Honorary Membership of the Soil Science Society of Poland in September 1995, in recognition of their important contribution in the field of soil science.

Prof.Dr. Stanislaw Moskal, previous President of the Polish Soil Science Society, has been awarded the title of Honorary President of the Soil Science Society of Poland in September 1995, in recognition of his important contribution in the field of soil science and the development of the Polish Soil Science Society.

Personal

The secretary of the Deputy Secretary-General of ISSS, **Mrs Marie-Béatrice Clabaut,** has resigned her post on 1 September 1995. Since 1985 she had been working for Dr. Wim G. Sombroek, ISSS Secretary-General and Hans van Baren, Deputy Secretary-General. Responsible for the day-to-day running of the secretariat, she has in recent years made most of the book announcements in the ISSS Bulletin.

Born and raised in France, she came to the Netherlands in 1983 and married a Dutch scientist. She became a registered translator French-Dutch-French and opened her own office recently.

On behalf of the ISSS we thank her for her valuable cooperation and wish her well.

IN MEMORIAM
Lindo J. Bartelli

Lindo J. Bartelli, retired soil scientist, director of soil survey interpretations for the Soil Conservation Service, professor and department head of the Forestry Department and dean at Michigan Technological University, died on January 21, 1995 of a stroke.

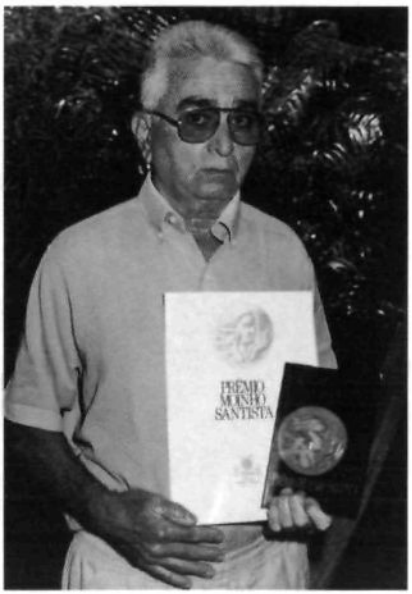
Dr. Bartelli was born on June 20, 1917 at Gaastra, Michigan. He graduated from Michigan State University in 1940 and received his M.Sc. degree from that University in 1952. He began work for the USDA Soil Conservation Service in 1941 in Michigan as a field soil scientist. He earned a Ph.D. in soils at the University of Illinois in 1958. Later, he went to Fort Worth, Texas, as principal soil correlator and head of the Soils Staff for the Southern States. In 1973, he transferred to Washington, D.C. as director of soil survey interpretations, where he served until his retirement in 1997.

He taught in the Forestry Department at Michigan Technological University at Houghton, Michigan and was named Head of that Department in 1980. He was a dean of the University for a period before his retirement in 1981. Dr. Bartelli visited several countries as a consultant, advisor and lecturer. After his retirement he served on the Wetlands Commission for several years.

Lindo Bartelli is survived by his wife and two daughters. He is remembered by his colleagues for his excellent work and his enthusiasm.

J.D. Nichols, USA

Marcelo N. Camargo



Marcelo N. Camargo, pedologist par excellence, died in Rio de Janeiro, Brazil, on July 7, 1995, at the age of 68.

He was born in Lorena, Sao Paulo, Brazil, in 1927. He graduated as an agronomist from the Federal Rural University of Rio de Janeiro in 1952 and subsequently studied soil genesis, soil morphology and soil classification at North Carolina State University. In 1954 he joined the then Soil BILD L-CAMARG Commission of the Ministry of Agriculture, now the National Soil Research Center (Centro Nacional de Pesquisa de Solos, CNPS) of EMBRAPA, the Brazilian agricultural research organization. From 1972 to 1982 he was also professor of soil classification at the Federal Rural University in Rio de Janeiro. He retired from the CNPS in 1990.

During his remarkable career, Marcelo Camargo held many important positions at the soil research center, culminating in his appointment as a National Soil Correlator. He also served as the technical coordinagor of the USAID-sponsored Frontier Development Project and as a member of the consultative committee of the National Institute of Scientific and Technological Development of Brazil.

Working with the late Professor J. Bennema of the Agricultural University in Wageningen and Dr. K.J. Beek of the International Institute for Aerospace Surveys and Earth Sciences (ITC) in Enschede, both in The Netherlands, Marcelo Camargo provided decisive inputs for the FAO Framework for Land Evaluation. He also collaborated prominently in the preparation of the FAO/UNESCO Soil Map of the World and supplied significant information on the soils of South America.

Perhaps Marcelo Camargo's most important contribution to soil science at the international level was in the development of a new classification of the Oxisols. He was a key member of the Interna-

tional Committee on the Classification of Oxisols (ICOMOX) and the International Committee on the Classification of Soils with Low Activity Clays (ICOMLAC). In cooperation with the University of Puerto Rico and the then Soil Conservation Service of the U.S. Department of Agriculture, he organized two international soil classification workshops that allowed members of the two committees to discuss the new Oxisol classification at propitiously selected profiles in the field. Without these workshops, the Oxisol classification would certainly have been flawed.

In recognition of his academic and scientific accomplishments, Marcelo Camargo received many honours and awards. Premier among them is the „Premio Moinho Santista", the highest recognition for scientific research awarded in Brazil.

Marcelo Camargo was a humble person, but he held strong convictions and opinions about soils and their classification. He defended his beliefs with a tenacity that was based on a comprehensive factual knowledge and sound intuitions resulting from a near encyclopedical knowledge of the soils of Brazil. His dedication to the advancement of soil science was exemplary and he was always willing to share his expertise with colleagues from abroad.

We will remember Marcelo Camargo as a man whose work and ideas influenced the course of tropical soil science and his untimely demise leaves a vacuum that will be difficult to fill. But Marcelo Camargo was not only an outstanding soil scientist, he was also a wonderful person and those of us who have had the privilege to know him will remember him with admiration and affection.

Friedrich H. Beinroth, University of Puerto Rico, Mayaguez
Antonio Ramalho-Filho, EMBRAPA, Rio de Janeiro, Brazil

MEETINGS, CONFERENCES, SYMPOSIA
REUNIONS, CONFERENCES,SYMPOSIA
TAGUNGEN, KONFERENZEN,SYMPOSIEN

Important Notice

ISSS, as a Scientific Union Member of the International Council of Scientific Unions (ICSU), subscribes to the principle of free movement of bona fide scientists; patronage or sponsoring will therefore automatically be withdrawn if the country of venue denies or purposely delays visa awarding to any ISSS member who wishes to participate in the meeting concerned.

1996

World Summit for Social Development, Copenhagen, Denmark, March 11 - 12, 1996
Information: Mr. Delmar Blasco, Executive Director, ICVA, Case postale 216, 1211 Geneva 21, Switzerland; Tel: +41-22-732-6600, Fax: +41-22-738-9904; E-mail: DIALCOM: TCN4092 and UNX024
or:
Ms. Sirpa Utriainen, Secretary General, ICSW, Koestlergasse 1/29, 1030 Vienna, Austria; Tel: +43-1-587-8164; Fax: +43-1-587-9951

Conference on the Application of Remotely Sensed Data and Geographic Information Systems (GIS) in Environmental and Natural Resources Assessment in Africa, Harare, Zimbabwe, March 15-22, 1996.
Information: The Secretariat, Conference on Environment and Natural Resources Assessment in Africa, Environment and Remote Sensing Institute (ERSI), P.O.Box 6640, Causeway, Harare, Zimbabwe. Tel: 263-4-731049/7/5; Fax: 263-4-7310-49/733797/45628

IVth International Symposium on Plant-Soil Interactions at Low pH, Belo Horizonte, Minas Gerais, Brazil, March 17-24, 1996.
Information: Symposium Manager, Tel: 55-31-241-2096; Fax: 55-31-241-2827; E-mail: lowph-sym@cnpms.embrapa.br.

1st International Symposium on Tropical Savannas: „Biodiversity and Sustainable Production of Food and Fibers in the Tropical Savannas, Brasília, Brazil, March 24-29, 1996.
Information: 1st Sympsium on Tropical Savannas, Att. Ms. Lucilene M. Andrade, EMBRAPA-CPAC, Caixa Postal 08.223, Planaltina, DF 73301-970, Brazil; Tel: 55-(61)-389-1171; Fax: 55-(61)-389-2953.

Joint BAHC GCTE GEWEX Workshop on „Bidirectional Ecosystem-Atmosphere Interactions at the Mesoscale", Brazil, April-May, 1996.
Information: Roni Avissar, Meteorology & Phys. Oceanography, Rutgers Univ., Cook College, Box 231, New Brunswick, NJ 08903-023, USA; Tel: +1-908-932/9520/9387/9027, Fax: /7922, E-mail: avissar@gaia.rutgers.edu.

9th International Congress on Soilless Culture, St. Helier, Jersey, Channel Islands, April 12-19, 1996
Information: Secretariat of ISOSC, P.O.Box 52, 6700 AB Wageningen, The Netherlands

International Conference on Environmental Pollution, Budapest, Hungary, April 15 - 19, 1996.
Information: Prof. B. Nath, Chairman of the Organising Committee, ICEP Conference Office, 253 Kilburn Lane, London W10 4BQ, UK. Tel: +44-81-960-6823; Fax: +44-81-960-1597
HydroGIS '96, International Conference on the Application of Geographic Information Systems in Hydrology and Water Resources Management, Vienna, Austria, April 16-19, 1996.
Information: HydroGIS '96, c/o Austropa-Interconvention, P.O.Box 30, 1043 Vienna, Austria. Tel: +43-1-588-00-110; Fax: +43-1-586-7127

Ten years terrestrial radioecological research following the Chernobyl accident, Vienna, Austria, April 22 - 23, 1996.

Information: Dr. Andreas Baumgarten, Federal Research Institute of Horticulture, Gruenbergstrasse 24, 1131 Vienna, Austria.

Sexto Congreso Nacional y Conferencia Internacional de Geología Ambiental y Ordenación del Territorio „Riesgos Naturales, Ordenación del Territorio y Medio Ambiente“, Granada, España, 24 al 27 abril 1996
Información: VI CNGAOT. Dpto de Congresos de Viajes Sacromonte. C/Angel Ganivet 6. 18009 Granada. Tel: 958-225598/9; Fax: 224617; Telex: 78484.

International Symposium: Carbon and Nutrient Dynamics in Natural and Agricultural Tropical Ecosystems, Harare, Zimbabwe, April 29-May 4, 1996.
Information: B. Campbell, Institute of Environmental Studies, University of Zimbabwe, Box MP167, Harare, Zimbabwe; Fax: +263-4-(3)33407; E-mail: B.campbell@esanet.zw.

XV Argentinian Soil Science Congress, Santa Rosa, Argentina, May 19 - 24, 1996.
Information: Organization Committee, XV Argentinian Soil Science Congress, Sarmiento 161, 6300 Santa Rosa, Argentina; Tel.&Fax: +54-954-32547.

International Congress: „Nitrogen Emissions from Grasslands - Gaseous Transfers and their Interactions“, North Wyke, Okehampton, UK, May 20-22, 1996.
Information: Mrs. A Roker, IGER, North Wyke, Okehampton, EX20 2SB, Devon, UK; Tel: (+44)-1837-82558; Fax: (+44)-1837-82998; E-mail: ROKER@BBSRC.AC.UK.

10th International Peat Congress, Bremen, Germany, 27 May - 2 June 1996.
Information: Prof.Dr. Jens Dieter Becker-Platen, Chair of the Organizing Committee, Deutsche Gesellschaft f. Moor- u. Torfkunde e.V., P.O.Box 51 01 53, 30631 Hannover, Germany. Fax: +49-511-6432304.

10th International Working Meeting on Soil Micromorphology, Moscow, Russia, June 1996.
Information: Dr. V.M. Sefanova, Faculty of Soil Science, Moscow State University, 119 899 Moscow, Russia. Fax: +7-095-939-0989; E-mail: fater.inbox@parti.inforum.org.su.

Soil Structure - Physical Processes and Functions in Ecosystems, June 1996, Kiel, Germany.
Information: Prof.Dr. R. Horn, Inst. of Plant Nutrition and Soil Science, Cristian Albrechts University, Olshausenstr. 40, 24118 Kiel, Germany. Tel: +49-431-880-3190, Fax: +49-431-880-2940

International Conference „Chernozem fertility, conservation and rational use“, Kharkov, Ukraine, June 5-7, 1996.
Information: International Conference 96, Institute for Soil Science and Agrochemistry Research, Chajkovsky St. 4, 310024, Kharkov, Ukraine. Tel: 380-572-470531; Fax: 380-0572-478563; E-mail: mbox@issar,kharkov,ua.

International Conference on Land Degradation, Adana, Turkey, June 10-14, 1996.
Information: Prof.Dr. Selim Kapur, Secretary of the Conference, University of Çukurova, Dept. of Soil Science, 01330-Adana, Turkey

International Symposium on Soil Erosion and Sustainable Development of Steep Lands, Kunming, China, June 17-21, 1996.
Prof. Cai Quiangguo, Institute of Geography, CAS, Building 917, Datun Road P.O. Box 9719, Beijing 100101, P.R. China; Fax: +861-4911104 or +861-4911844; E-mail: lixb@bepc2.ihep.ac.cn.

Medersert'96, Conference Internationale sur la Desertification des Sols dans le Bassin Mediterraneen, Barcelone, Espagne, 17-21 juin 1996.
Information: Medias-France, „Medesert'96“, CNES-BPl 2102, 18 Avenue Edouard-Belin, 31055 Toulouse Cedex, France; Tél: (+33)61-28-26-67; Fax: (+33)61-28-29-05;
E-mail: sec@medias1.cst.cnes.fr.

Third International Conference on PRECISION AGRICULTURE, Minneapolis, MN, USA, June 23-26, 1996.
Information: Dr. Pierre Robert, Precision Agriculture Center, Dept. Soil, University of Minnesota, 1991 Upper Buford Circle, St. Paul, MN, 55108-6028. Tel: +1-612-625-3125; Fax: +1-612-624-4223; E-mail: probert@soils.umn.edu

20th Congress of the Soil Science Society of South Africa - 20ste Kongres van die Grondkundevereniging van Suid-Afrika, Bloemfontain, South Africa, June 25-27, 1996.
Information: Elize Rall, Secretary, 20th SSSSA Congress, P.O.Box 4345, Bloemfontain 9300, South Africa; Fax: (051)306714.

International Symposium: „Biodegradation of Organic Pollutants", Mallorca, June 29 - July 3, 1996.
Information: Prof. K.N. Timmis, Division of Microbiology, G.B.F., Mascheroder Weg 1, 38124 Braunschweig, Germany; Fax: 49-531-618-1411; E-mail: kti@GBF-Braunschweig.DE.

Impact of Minerals-Organics-Microbes Interactions on Soil and Freshwater Environments, Nancy, France, July 1996.
Information: Prof. P.M. Huang, Dept. of Soil Science, University of Saskatchewan, Saskatoon, SK S7N 0W0, Canada; Fax: +1-306-966-688.

Australian and New Zealand National Soils Conference 1996, Melbourne, July 1-4, 1996.
Information: Michael Sullivan, Conference Management, The University ofMelbourne, Parkville Vic 3052, Australia; Tel: (613)9344-4490; Fax: (613)9344-6122

Rocky Mountain Rendezvous, „Renew Yourself in the High Country", July 7-10, 1996, Keystone Resort, Colorado, USA.
Information: Soil and Water Conservation Society, 7515 NE Ankeny Road, Ankeny, Iowa 50021-9764, USA.

4th Congress of the European Society for Agronomy, Veldhoven and Wageningen, The Netherlands, July 7 - 11, 1996.
Information: ESA Fourth Congress, Kongresservice Brabant, P.O. Box 140, NL-5500 AC Veldhoven, The Netherlands, Fax: +31-8370-23110

10th International Working Meeting on Soil Micromorphology, Moscow, Russia, July 8 - 13, 1996.
Information: Dr. V.M. Safonova, Faculty of Soil Science, Moscow State University, Moscow 119899, Russia. Fax: +7-095-939-0989; E-mail: fater.inbox@parti.inforum.org.su.

5th International Society of Root Research Symposium on „Root Demographics and their Efficiencies in Sustainable Agriculture, Grassland, and Forestry Ecosystems", Clemson, USA, July 14-18, 1996.
Information: Prof. James E. Box, United States Deprtment of Agriculture, Agricultural Research Service, South Atlantic Area, Southern Piedmont, Conservation Research Center, 1429 Experimentation Station Road, Watkinsville, Georgia 30677, USA, Fax: +1-706-769-8962

5th International Society of Root Research Symposium on „Root Demographics and their Efficiencies in Sustainable Agriculture, Grassland, and Forestry Ecosystems", Clemson, USA, July 14-18, 1996.
Information: Prof. James E. Box, United States Department of Agriculture, Agricultural Research Service, South Atlantic Area, Southern Piedmont, Conservation Research Center, 1429 Experimentation Station Road, Watkinsville, Georgia 30677, Fax: +1-706-769-8962.

International Symposium on Erosion and Sediment Yield: Global and Regional Perspectives, Exeter, UK, July 15 - 19, 1996.
Information: Prof. D.E. Walling or Dr. B.W. Webb, Dptmt. of Geography, University of Exeter, Amory Building, Rennes Drive, Exeter, EX4 4RJ, UK; Tel: +44-392-263345 or -263334, Fax: +44-392-263342, E-mail: b.w.webb@exeter.ac.uk.

XII International Colloquium on Soil Zoology, Dublin, Ireland, July 21-26, 1996.
Information: Dr. T. Bolger, Department of Zoology, University College Dublin, Belfield, Dublin 4. Tel: +353-1-706-2300; Fax: +353-1-706-1152; E-mail: TBOLGER@IRLEARN.UCD.IE.

International Symposium: Carbon Sequestration in Soil, Columbus, Ohio, USA, July 22-26, 1996.

Information: Lynn Everett, School of Natural Resources, 2021 Coffey Road, The Ohio State University, Columbus, Ohio 43210, USA. Tel: (+1)614-292-9909; Fax: (+1)614-292-7432; E-mail: leverett@magnus.acs.ohio-state.edu

13th Latin American Soil Science Congress, 11th Brazilian Soil and Water Conservation Meeting and 1st Brazilian Soil Biology Meeting, Águas de Lindóia, Brazil, August, 4-10, 1996.
Information: Prof.Dr. Pablo Vidal Torrado, Organizing Committee Chairman, Soil Science Department, University of Sao Paulo, Agronomy Campus „Luiz de Queiroz", CP 9, 13.418-900, Piracicaba (SP). Tel: +55-194-29-4246; Fax: +55-194-34-3242; E-mail: CLACS96@esalq.usp.br.

30th International Geological Congress, Beijing China, August 4 - 14, 1996 Information: Prof. Zhao Xun, Deputy Secretary General, 30th International Geological Congress, P.O. Box 823, Beijing 100037, P.R. China. Fax: +86-10-832-8928; E-mail: zhaox@bepc2.ihep.ac.cn.

28th International Geographic Congress „Land, Sea and Human Effort", The Hague, The Netherlands, August 5 - 10, 1996.
Information: Congress Secretariat, IGC'96, The Hague, Mw.R. van der Linden, Faculty of Geographical Sciences, Utrecht University, P.O. Box 80115, 3508 TC Utrecht, The Netherlands. Tel: +31-30-532044; Fax: +31-30-540604

International Workshop on „Soil and Water Quality at Different Scales", Wageningen, The Netherlands, August 7 - 9, 1996.
Information (scientific): Dr. P.A. Finke, Winand Staring Centre for Integrated Land, Soil and Water Research, P.O.Box 125, 6700 AG Wageningen, The Netherlands. Tel: +31-8370-74258 (after 10.10.95: +31-317-424812); Fax: +31-8370-24812 (after 10.10.95: +31-317 474258); E-mail: p.a.finke@sc.agro.nl.
Information (organizational, registration etc.): IAC, Section OCC, P.O.Box 88, 6700 AB Wageningen, The Netherlands; Fax: +31-8370 18552 (after 10.10.95: +31-317-418552), Tel: +31-317-490111.

Ecological Summer Summit '96, Copenhagen, Denmark, August 19-23, 1996
- 10th International Conference on Ecological Modelling
- International Conference on Ecological Engineering
- 2nd International Symposium on Ecosystem Health
- European Meeting on Ecological Economics

Information: Gill Spear, ECO-Summit '96 Secretariat, Elsevier Science Ltd., Conference Department, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, UK. Tel: (+44)1865-843643; Fax: (+44)1865-843958; E-mail: g.spear@elsevier.co.uk.

International Symposium „Sustainable Land Management", Tallinn - Lohusalu, Estonia, August 20-24, 1996.
Information: Dr. Edvin Nugis, SCA „ECOFILLER", Teaduse 18-4, EE3400 Saku, Harju County, Estonia; Fax: 372-2-721961; Tel: 372-2-722-564.

9th Conference of the International Soil Conservation Organisation (ISCO): „Towards Sustainable Land Use - Furthering Cooperation between People and Institutions", August 26-30, 1996, Bonn, Germany.
Information: A. Klein, Federal Environmental Agency, FG II 3.2/Soil Quality, Postfach 33 00 22, 14191 Berlin, Germany; Fax: (+49-30)229-30-96 or 231-56-38; E-mail: 100 434 1121 @cumpuserve.com

Second International Congress of the European Society of Soil Conservation (ESSC): Development and Implementation of Soil Conservation Strategies for Sustainable Land Use, München-Weihenstephan, Germany, September 1 - 7, 1996.
Information: Dr. Karl Auerswald, ESSC Congress, Lehrstuhl fuer Bodenkunde, TU München, 85350 Freising, Germany. Fax: +49-8161-714466.

2nd Workshop on Sustainable Land Use Planning, with special regard to Central and Eastern European Countries, Gödöllö, Hungary, September 4 - 6, 1996.
Information: Gödöllö University of Agricultural Sciences, H-2103 Gödöllö, Hungary; Tel: +36-28310-200; Fax: +36-28310-804; E-mail: TSZALAI@FA.GAU.HU .

8th Meeting of the International Humic Substances Society: The Role of Humic Substances in the Ecosystem and in Environmental Protection, Wroclaw, Poland, September 9-14, 1996.
Information: IHSS 8 Conference, J. Drozd and J. Weber, Agricultural University of Wroclaw, Institute of Soil Science and Agricultural Environment Protection, Grunwaldzka 53, 50-357 Wroclaw, Poland; Fax: +48(71)-224849; Tel: +48(71)-205632; E-mail: IHSS@ozi.ar.wroc.pl.

International Symposium on Soils with Gypsum, Lleida, Catalonia, Spain, September 15 - 21, 1996.
Information: Dr. Rosa M. Poch, Secretary ISSWG, Dep. Medi Ambient i Ciències del Sòl, UdL, Av. Rovira Roure 177, 25198 Lleida, Catalonia, Spain. Tel: +34-73-702-567; Fax: +34-73-238-264.

Joint BAHC GCTE DIS Workshop on „Large-Scale Pattern & Process in Root System Structure and Dynamics", USA, September/October 1996.
Information: Bhaskar Choudhury, NASA-GSFC, Code 974, Greenbelt, Maryland 20771, USA; Tel: +1-301-286/5155; Fax: /1758.

IUCN World Conservation Congress, Montréal, Canada, October 14-23, 1996.
Information: John Burke, Director of Communications, IUCN - The World Conservation Union, 28 rue Mauverney, 1196 Gland, Switzerland.

Substrate Use for Characterization of Microbial Communities in Terrestrial Ecosystems", Innsbruck, Austria, October 17-18, 1995.
Information: Dr. H. Insam, Institut f. Mikrobiologie, Technikerstrasse 25, Universitaet Innsbruck, 6020 Innsbruck, Austria; Tel: +43-512-507-6009; +43-512-507-2928;
E-mail: Heribert.Insam@uibk.ac.at

X Seminario Cientifico del Instituto Nacional de Ciencias Agricolas (INCA), La Habana, Cuba, 6 - 8 de noviembre de 1996.
Información: Dr. C. Rodolfo R. Piana Llerena, Secretario Ejecutivo X Seminario Cientifico, Instituto Nacional de Ciencias Agrícolas, Caseta Postal 1, San José de las Lajas, La Habana 32700, Cuba.

Maximizing Sustainable Rice Yields Through Improved Soil and Environmental Management, Khon Kaen, Thailand, November 11-17, 1996.
Information: Prof. Dr. Tasnee Attanandana, Soil and Fertilizer Society of Thailand, Department of Soil Science, Faculty of Agriculture, Kasetsart University, Bangkok 10900, Thailand. Tel: (662)-579-9538; 579-2028; Fax: (662)561-4766.

International Symposium on Hydrology in the Humid Tropic Environment, Kingston, Jamaica, November 17-22, 1996.
Information: A. Ivan Johnson, Co-Chairman, HTE'96, Water and Soils Consulting, 7474 Upham Court, Arvada, CO 80003-2758 USA; Tel. and Fax: +1-303-425-5610.

ICSC-2: The 2nd International Crop Science Congress, New Delhi, India, November 17 - 23, 1996.
Information: Suresh K. Sinha, Secretary General, Second International Crop Science Congress, IARI, Pusa, New Delhi-110 012, India.

Soil Resilience and Sustainable Land Use for Small Holdings, Dhaka, Bangladesh, November 20-23, 1996.
Information: Dr. Z. Karim, M.D., BARC, Farmgate, New Arpat Road, Dhaka, Bangladesh; Tel: 311432:884232.

Tercer Simposio Internacional: Suelos Volcanicos Endurecidos - Problemática de un Ordenamiento Sostenible, Quito, Ecuador, 9-14 de diciembre de 1996.
Información: Germán Trujillo y/o Claude Zebrowski, ORSTOM Ecuador, Apartado 1711 6596, Quito, Ecuador.

1997

XVIII International Grassland Congress, Grasslands 2000, Winnipeg, Manitoba & Saskatoon, Saskatchewan, Canada, June 8 - 19, 1997.

Information: P.O.Box 4520, Station C, Calgary, Alberta, Canada T2T 5N3; Tel: (403)244-4487, Fax: (403)244-2340, E-mail: amc@supernet.ab.ca.

11th International Clay Conference, Ottawa, Ontario, Canada, June 15-21, 1997.
Information: Dr. Jeanne B. Percival, Secretary-General, 11th ICC, Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario, Canada K1A 0E8. Fax: 613-943-1286; Internet: icc97@gsc.emr.ca; use gopher.emr.ca (GSC menu) for future updates on the 11th ICC.

16th International Congress of Nutrition, Montreal, Canada, July 27-August 1, 1997.
Information: 16th International Congress of Nutrition, c/o Conference Services Office, National Research Council Canada, Ottawa, ON, Canada K1A OR6; Tel: (+1-613)993-7271; Fax: (+1-613)993-7250; E-mail: confmail@aspm.lan.nrc.ca.

14th ISTRO Conference: Agroecological and Economical Aspects of Soil Tillage, Lublin, Poland, July 27 - August 4, 1997.
Information: ISTRO Conference 1997, Dr. Jerzy Rejman, Institute of Agrophysics, Polish Academy of Sciences, ul. Doswiadezalna 4, 20-236 Lublin, Poland; Tel: +48-81-45061; Fax: +48-81-45067.

VII Congreso Nacional Chileno de la Ciencia del Suelo, La Serena, Chile, Agosto de 1997.
Información: Fax:+56-51-211473. Suelos y Nutrición de Plantas, Universidad de La Serena, Chile.

II International Conference „Cryogenic Soils: Ecology, Genesis and Classification", Syktyvkar, Komi Republic, Russia, August 5-8, 1997.
Information: Prof. I.V. Zaboeva, Institute of Biology, Komi Center, Russian Academy of Sciences, 167610 Syktyvkar, Komi Republic, Russia. Tel: +7-821-22-25213; +7-821-22-25240; Fax: +7-821-22-25213.

***BORON97: International Symposium on Boron in Soils and Plants**, Chiang Mai, Thailand,* September 7-11, 1997
Information: Dr. B. Rerkasem, Multiple Cropping Center, Chiang Mai University, Chiang Mai, Thailand 50200; Fax: +66-53-210000.

XIII International Plant Nutrition Colloquium, Tokyo, Japan, September 13-17, 1997.
Information: Dr. Hiroaki Hayashi, IPNC Secretariat, Division of Agriculture and Agricultural Life Sciences, The University of Tokyo, 1-1-1, Yayoi, Bunkyo-ku, Tokyo 113, Japan. Fax: +81-3-5689-7226; Tel: +81-3-3812-2111 ext. 5105; E-mail: hiroh@tansei.cc.u-tokyo.ac.jp.

6th Internatinal Conference on Agrophysics, Lublin, Poland, September 15-18, 1997.
Information: R. Debicki, Institute of Agrophysics, Polish Academy of Sciences, Doswiadczalna 4, P.O.Box 121, 20-236 Lublin, Poland; Tel: +48-81-450-61, Fax: +48-81-450-67; E-mail: debicki@demeter.ipan.lublin.pl.

1998

XVIth World Congress of Soil Science, Montpellier, France, August 20-26, 1998
Information: XVI World Congress of Soil Science, Congress Secretariat, 1101, Avenue Agropolis, 34394 Montpellier Cedex 5; France; tel: (+33)67 04 75 38; fax: (+33)67 04 75 49

INTERNATIONAL TRAINING COURSES
COURS INTERNATIONAUX DE FORMATION
INTERNATIONALE FORTBILDUNGSKURSE

International Postgraduate Course: Soil Pollution and Soil Protection, R.U. Gent, Wageningen Agricultural University, K.U. Leuven, June 3-8, 1996.
Information: ITC (PHLO), Wageningen Agricultural University, P.O. Box 8130, 6700 EW Wageningen, The Netherlands.
Tel: +31-317-484092/3; Fax: +31-317-426547.

Short Course in Plant and Soil Analysis, Reading, UK, August 16 - September 9, 1996.
Information: Dr. I. Mueller-Harvey, Faculty Analytical Laboratory, Department of Agriculture, The University of Reading, Earley Gate, P.O.Box 236, Reading, RG6 6AT, UK.
Tel: +44-1734-316-619; Fax: +44-1734-352-421; E-mail: I.Mueller-Harvey@reading.ac.uk

20th International Course on Nutrient Management for Sustainable Agriculture, Wageningen, The Netherlands, August 25 - September 21, 1996.
Information: International Agricultural Centre (IAC), P.O. Box 88, Lawickse Allee 11, 6700 AB Wageningen, The Netherlands.
Tel: +31-317-490111; Fax: +31-317-418552 (attention: tel. nos. may have changed!); E-mail: iac@iac.agro.nl.

The University of Reading, U.K., offers a new 6-week course in Plant and Soil Analysis in September/October 1996
Information: Richard Baker, Course Tutor, University of Reading, 12 Laurel Drive, Tilehurst, Reading RG31 5DY. Tel: +44-1734 425344; Fax: +44-1734 513000

35th International Course on Land Drainage, August 19 - November 29, 1996, International Institute for Land Reclamation and Improvement, Wageningen, The Netherlands.
Closing date for application: May 1, 1996
Information: The Registrar of ILRI, P.O.Box 45, 6700 AA Wageningen, The Netherlands.

International Course on Microcomputer Applications in Land Drainage, December 2 - 20, 1996, International Institute for Land Reclamation and Improvement, Wageningen, The Netherlands.
Information: The Registrar of ILRI, P.O.Box 45, 6700 AA Wageningen, The Netherlands.

The University of Cape Town, Department of Geological Sciences, offers a **MSc Course in Environmental Geochemistry**.
Time schedule: 11 course modules of 1-3 weeks' duration between January and June, exam in July.
Information:Dr. M.V. Fey, Department of Geological Sciences, University of Cape Town, Rondebosch, 7700, South Africa. Tel: 021 650 2903/2931; Fax 021 650 3783; E-mail: fey@geology.uct.ac.za.

ITC Postgraduate Diploma and MSc Degree Courses, Enschede, The Netherlands,
ITC offers a wide range of courses on

- Msc. Degree Course: Environmental Systems Analysis and Monitoring
- Postgraduate Diploma and MSc Degree Courses: Soil Survey and Applications of Soil Information
- Postgraduate Diploma Course: Rural and Land Ecology Survey
- Msc Degree Course: Rural and Land Ecology Survey
- Postgraduate Diploma and Msc. Degree Courses: Socio-
- Economic Information for Natural Resource Management.

Information: ITC, Student Registration Office, Attn. Mrs. A Scheggetman, P.O.Box 6, 7500 AA Enschede, The Netherlands, Tel: +31-(0)53-4874-205; Fax: +31-(0)53-4874-238; Telex: 44525 itc nl; E-mail: scheggetman@itc.nl.

Post-Graduate Course: Remote Sensing and Natural Resources Evaluation, Istituto

Agronomico per l'Oltremare, Florence, Italy.
Information: Istituto Agronomico per l'Oltremare, Via A. Cocchi, 4, 50131 Florence, Italy; Tel: 39-55-573-201; Fax: 39-55-580-314.

Silsoe College, Bedford, England, offers a wide range of post-graduate courses and studies, e.g.: **Agribusiness Management and Technology (MSc.), Agroforestry (MSc.), Land Resource Management and Planning (MSc. and Postgraduate Diploma programmes), Engineering for Rural Development (MSc.), Agricultural Engineering (Agrochemicals Application Technology - MSc., etc.), Management for Agricultural Development (MSc.), Agricultural and Food Marketing (MSc. and PD), Agricultural Water Management (MSc.), Crop Production Technology (MSc.), Information Technology (MSc.),** etc.
Information: The Student Recruitment Executive, Silsoe College, Silsoe, Bedford MK45 4DT, U.K.; Tel: (0525) 860428; Fax: (0525) 861527; Telex: 826383 silcam g

External Programme, specialised courses on Managing Agricultural Development, Environmental Management in Agricultural Development, Kent, UK.
Information: The External Programme, Wye College, University of London, Ashford, Kent TN25 5AH UK (Tel.: 0233 812401; Fax: 0233 813320; Telex: 94017832 WYEGG).

2-Year Master Programme in Water Resources Engineering (Options: Irrigation, Hydrology, Water quality management)
Interuniversity Programme in WAter Resources Engineering (IUPWARE), Katholieke Universiteit Leuven - Vrije Universiteit Brussel, Belgium
Information: Institute for Land and Water Management, K.U. Leuven, Vital Decosterstraat 102, 3000 Leuven, Belgium.
Tel: +32-1623-1381, Fax: +32-1623-0607, E-mail: agr@cc3.kuleuven.ac.be
or
Laboratory for Hydrology, V.U. Brussel, Pleinlaan 2, 1050 Brussel, Belgium; Tel: +32-2629-3021; Fax: +32-2629-3022; E-mail: hydr@vub.ac.be.

International Summer Courses on „Microcomputer Applications in Water Resources Engineering and Management", Leuven, Belgium.
Information: Mrs. Greta Camps, Course Secretary, Institute for Land and Water Management, Vital Decosterstraat 102, 3000 Leuven, Belgium. Tel: +32-1623-1381, Fax: +32-1623-0607, E-mail: agr@cc3.kuleuven.ac.be

MSC Programme in Survey Integration for Resources Development
- **Land Use Planning and Resources Management or**
- **Project Planning and Implementation or**
- **Rural Energy and Development**
- **Environmental Systems Analysis and Monitoring**

Postgraduate Diploma and MSc Degree Courses on Soil Survey and Applications of Soil Information
International Institute for Aerospace Survey and Earth Sciences, Enschede, The Netherlands
Information: ITC Student Registration Office, P.O. Box 6,
NL-7500 AA Enschede, The Netherlands
Tel: +31 53 874 205, FAX: 053 874 238, Telex: 44525 itc nl

Master of Science in Eremology (Interdisciplinary, 2-Year, Post-Graduate Programme in Desert Science), Ghent, Belgium, starting each year in October.
Information: The International Center for Eremology, Faculty of Agricultural and Applied Biological Sciences, University of Ghent, Coupure Links 653, B-9000 Gent, Belgium.
Tel.: +32-9-2646036; Fax: +32-9-2646247; Telex: 12754 rugent b

M.Sc. Courses in „Irrigation Engineering" and „Soil Conservation and Land Reclamation".
Information: Information: The Course Administrator, Effective Irrigation Management Short Course, Institute of Irrigation Studies, The University, Southampton SO9 5NH, UK (Tel.: (0703) 593728;

Fax: (0703) 593017; Telex: 47661 (a/b sotonu g).
4

International Post-graduate Training Course in Eremology, (Desert Science), Ghent, Belgium.
Information: The International Center for Eremology, University of Ghent, Coupure Links 653, B-9000 Gent, Belgium (Tel.: ++32-91-646036; Fax: ++32-91-646247).
4

Master's and Advanced Course in Soil Science, International Training Centre for Post-Graduate Soil Scientists, Ghent, Belgium.
Information: Prof.Dr. G. Stoops, Director ITC, Geological Institute, University of Ghent, Krijgslaan 281/S8, B-9000 Gent, Belgium;
Tel: +32-91-644561, Telex: 12754 RUGENT, Fax: +32-91-644991;
E-mail: ADM@ITC.RUG.AC.BE
4

Post-graduate Courses in Soil Science, Plant Production, and Ecology. MSc and PhD Degree, Universidad de Buenos Aires, Argentina.
Language: Spanish
Information: Fac. Agronomía. UBA, Escuela para Graduados, Av. San Martín 4453.
(1417) Buenos.Aires, Argentina. Fax: (+541)522-1687.
5

International Agriculture Courses at MSc. Level, Larenstein International Agricultural College, The Netherlands.
Information: Larenstein International Agricultural College, P.O.Box 7, 7400 AA Deventer, The Netherlands.
4

ICRA, Centre International pour la Recherche Agricole orientée vers le Développement - International Centre for Development Oriented Research in Agriculture
Formation post-académique pour de jeunes chercheurs agricoles des pays en voie de développement et leurs collègues des pays développés qui ont une expérience de travail dans des pays en voie de développement.
Post-academic training for young agricultural scientists from developing countries and their colleagues from developed countries who have some working experience in developing countries.
Information: The Director of ICRA, P.O.Box 88, 6700 AB Wageningen, The Netherlands.
Fax: -31-8370-27046.
4

The University of Reading, Department of Soil Science, offers various Msc Programmes in the following areas:

- **MSc Spatial Analysis of Soils and Land Evaluation**
- **MSc Management of Soil Fertility**
- **MSc Soils and Environmental Pollution**
- **MRes Master of Research in the Earth and Atmospheric Sciences**

Information: The Postgraduate Admissions Tutor, Department of Soil Science, The University of Reading, PO Box 233, Reading, RG6 6DW, UK; Tel: +44-1734-316-557; Fax: +44-1734-316660; E-mail: s.nortcliff@reading.ac.uk.
5

ISSS COOPERATING JOURNALS
JOURNAUX COOPERANTS DE L'AISS
IBG KOOPERIERENDE ZEITSCHRIFTEN

1. ARID SOIL RESEARCH AND REHABILITATION
Size: Four issues per year in one volume of ca. 400 pages.
Publisher: Taylor & Francis New York
Editor-in-chief: Prof.Dr. J. Skujins, Utah State University, USA.
Full subscription rate incl. postage (1993): US$ 99.00.
Personal subscription rate for ISSS members (1996): US$ 80.00.

2. BIOLOGY & FERTILITY OF SOILS
Size: Eight issues per year, in two volumes of about 750 pages.
Publisher: Springer Verlag, Berlin-Heidelberg-New-York-Tokyo.
Editor-in-Chief: Prof.Dr. J.C.G. Ottow, Giessen, Germany.
Full subscription rate for the two volumes, excluding surface mailing: DM 956.00.
Personal subscription price for ISSS members for the two volumes, excluding postage and handling DM 597.60.

3. CATENA, an interdisciplinary journal of Soil Science-Hydrology-Geomorphology, focusing on Geoecology and Landscape Evolution.
1995: Volume 23-25 in 12 issues
Publisher: Elsevier Science Publishers, Amsterdam, the Netherlands
Joint editors: R.B. Bryan, Toronto, Canada, R. Herrmann, Bayreuth, Germany, P. Jungerius, Amsterdam, the Netherlands, J. Poesen, Leuven, Belgium, R. Webster, Zürich, Switzerland and D. Yaalon, Jerusalem, Israel
Full subscription rate, including postage and handling: Dfl 1047.00/US$ 551.00
Personal subscription rate for ISSS members, including postage and handling: Dfl. 365.00

4. GEODERMA, an International Journal of Soil Science.
1995: Volumes 63-68 in 24 issues
Publisher: Elsevier Science Publishers, Amsterdam, the Netherlands.
Editor-in-Chief: Prof.Dr. J. Bouma, Wageningen, The Netherlands, Prof.Dr. J.A. McKeague, Ottawa, Ont., Canada and Prof. D.L. Sparks, Newark, DE, USA
Full subscription rate, including postage: Dfl 2226.00/US$ 1172.00.
Personal subscription price for ISSS members: Dfl 405.00

5. SOIL BIOLOGY & BIOCHEMISTRY
Size: 12 issues per year, in one volume of about 1800 pages.
Publisher: Elsevier Science Publishers, Amsterdam, the Netherlands
Editor-in-Chief: Prof.Dr. J.S. Waid, Mooloolaba, Australia.
Full subscription rate, including surface mailing: £ 590.00 (US$ 910.00). Personal subscription price of ISSS members: £ 74.00

6. SOIL TECHNOLOGY, journal concerned with applied research and field applications on soil physics, soil mechanics, soil erosion and conservation, soil pollution, soil restoration, drainage, irrigation and land evaluation.
Size: Quarterly, 1 volume (4 issues) per year, about 400 pages.
Publisher: Elsevier Science Publishers, Amsterdam, The Netherlands
Editors-in-Chief: Dr. D. Gabriels, Prof. Dr. R. Horn, Prof.Dr. M. Kutilek, Dr. M.J.M. Römkens.
Full subscription rate 1994, incl. surface mailing: Dfl. 326.00/US$ 176.00
Personal subscription rate for ISSS members 1994 (available from the publisher only): Dfl 116.00/US$ 63.00 (72% discount)

7. PEDOBIOLOGIA, international journal, focusing on soil biology, especially on soil zoology and microbiology.
Size: 6 issues per year, in 1 volume with 450 pages.
Publisher: G. Fischer, Jena, Stuttgart, New York.
Editors-in-chief: Prof.Dr. M. Schaefer and Dr. J. Schauermann, Göttingen, Prof.Dr. G. Weigmann, Berlin.
Subscription rate 1993: DM 330.00, plus postage
Reduced subscription-price for personal subscribers of ISSS: DM 94.00, plus postage.

ISSS-AISS-IBG

Cooperating Journals

Journaux Cooperatives

Kooperierende Zeitschriften

APPLICATION FOR SUBSCRIPTION/DEMANDE D'ABONNEMENT/ ANTRAG AUF ABONNEMENT

From: Family name: .....

First name(s) and title(s):.....

ISSS membership No.: .....

Full address: .....

.....

.....

.....

Telephone: Fax:

To: P.U.Lüscher
Treasurer ISSS
WSL, Zuercherstr.111
CH-8903 Birmensdorf/Switzerland

I should like to take a personal subscription for the following Cooperating Journal(s) (price rate 1996):

- Arid Soil Research and Rehabilitation (74.00 US$)
- Biology and Fertility of Soils (DM 597.60)
- Catena (Dfl. 365.00)
- Geoderma (Dfl 405.00)
- Soil Biology & Biochemistry (£ 74.00)
- Soil Technology (Dfl 116.00/US$ 63.00)
- Pedobiologia (DM 94.00 + postage)

I took note that the payment(s) will be made directly to the publisher(s) of the Journal(s) and not to the ISSS. I will receive respective instructions from the publishers.

Date: Signature:

For official use only:

- membership status: .....
- to Cooperating Journal(s): .....

NEW PUBLICATIONS
NOUVELLES PUBLICATIONS
NEUE VERÖFFENTLICHUNGEN

Methodology for Constructing Monthly Water Balance Models on Basin Scale. 2nd edition. VUB Hydrologie 20. G.L. Vandewiele, Chong-Yu Xu and Ni-Lar-Win. Dienst Uitgaven VUB, Brussels, 1993, 60 p. Paperback.

This booklet is a detailed self-contained description of a methodology for constructing monthly water balance models (or monthly rainfall runoff models) on basin scale, together with a number of examples. The methodology has been successfully applied to 85 basins in Belgium and 6 basins in the subtropical humid zone of Southern China.

This edition is an amplified version of the first one: models are discussed with different input requirements. Four model types are formulated, according to their required inputs: (1) precipitation and potential evapotranspiration; (2) precipitation, temperature and relative humidity; (3) precipitation and temperature; and (4) precipitation alone. Moreover applications to return periods and forecasts are exemplified.

Price: BEF 250 (postage not included)

Orders to: Dienst Hydrologie, Vrije Universiteit Brussel, Pleinlaan 2, B-1050 Brussel, Belgium.

Global Change of Planet Earth. Organisation for Economic Co-operation and Development, Paris, 1994, 150 p. ISBN 92-64-14069-7. Paperback.

Research on global change is truly a global issue, one which involves the entire world. Concern about changes in the evolution of the planet has risen sharply in recent years, spurring efforts to understand more fully how the extremely complex interactions of air, oceans, and land affect our total environment. This volume presents the input to and the results of the discussion of the Megascience Forum of experts. It gives a unique panorama of present and potential megascience activities in global change research, with special attention to the role and conditions of international co-operation.

Price: NLG 68

Orders to: Publications Service, OECD, 2 rue André-Pascal, F-75775 Paris Cedex 16, France.

Agricultural Development in the Dominican Republic. A Bibliography. Technical Centre for Agricultural and Rural Cooperation (CTA), Wageningen, 1993, viii + 373 p. ISBN 92-9081-1072. Paperback.

This bibliography of agriculture and development was compiled at the request of the national information and documentation services of the Dominican Republic. The main purpose of this bibliography is to provide a working tool for exploiting national documentary heritage by bringing together information on agricultural and rural development, both past and present. It is a means of promoting rapid and continuous interchange and use of research results in ACP countries. Although the main focus of this bibliography is on agricultural research, it covers a wide spectrum of subjects in development, including health, socio-economics and gender issues.

Orders to: see below.

Le Développement Agricole en Haïti. Bibliographie. Centre Technique de Coopération Agricole et Rurale (CTA), Wageningen, 1994, viii + 378 p. ISBN 92-9081-1153. Broché.

Cette bibliographie, consacrée au développement et à l'agriculture, a été compilée à la demande des services nationaux d'information et de documentation d'Haïti. En rassemblant les informations récentes et plus anciennes sur le Développement agricole et rural, cette bibliographie a pour objet principal de fournir un instrument de travail permettant l'exploitation du patrimoine documentaire national. Elle constitue un instrument grâce auquel les résultats des recherches pourront être échangés et utilisés rapidement et de façon continue dans les pays de l'ACP. Bien que la recherche agricole constitue la pièce maîtresse de cette bibliographie, celle-ci n'en couvre pas moins un large éventail de sujets relatifs au Développement, y compris les aspects concernant la santé, la socio-économie et le rôle joué par les femmes.

Commandes à: CTA, PO Box 380, 6700 AJ Wageningen, Pays-Bas/the Netherlands.

Assessing Forest Ecosystem Health in the Inland West. R.N. Sampson and D.L. Adams, editors. Food Products Press, New York, London, 1994, xxviii + 461 p. ISBN 1-56022-052-X. Hardback.

This volume includes papers from the American Forests Workshop held at Sun Valley in November 1993. The book provides the reader with a survey of current conditions in the Inland West, their historical origins, assessments of available management tools, and analyses of the various choices available to policymakers. Its goal is to help people understand the Inland West forests so that public policies can reflect a constructive and realistic framework in which forests can be managed for sustained health.

Price: USD 49.95

Orders to: Haworth Press Inc., 10 Alice Street, Binghamton, New York 13904-1580, U.S.A.

Integrating Soil Conservation into Farming Systems in the Commonwealth Caribbean. F.A. Gumbs. Commonwealth Secretariat, London, 1992, xi + 77 p. Paperback.

This status report provides an overview of the successes and failures in soil conservation work in the region. The author, of the University of the West Indies, has visited eight islands and drawn on his extensive knowledge of the Region to produce this report which provides an excellent baseline for further work.

Price: free of charge for Commonwealth countries; administration fee for others.

Orders to: see below.

Farmers and Soil Conservation in the Caribbean. F.A. Gumbs. Commonwealth Secretariat, London, 1994, viii + 136 p. Paperback.

In 1992, the Commonwealth Secretariat published the report mentioned above. This second report continues the study and the report is presented in two parts. The first examines the status of soil erosion and conservation in the region, the sociological factors in con-

servation programmes, and the legal and institutional context. The second part is concerned with the technology and examines the farming systems approach to soil conservation and the methods being employed. The Hillside Agricultural Project in Jamaica is discussed in some depth.
Price: free of charge for Commonwealth countries; administration fee for others.
Orders to: Commonwealth Secretariat, Marlborough House, Pall Mall, London, SW1Y 5HX, England.

The Role of Science in Food Production in Africa. V. Ravichandran and R.R. Daniel, editors. COSTED-IBN, Madras, 1994, iii + 139 p. Paperback.

This volume brings together the invited presentations made in a Seminar held at Accra in April 1994. COSTED-IBN (ICSU's Committee on Science and Technology for Development - International Biosciences Network) undertakes activities for the promotion and application of science for the benefit of developing countries. At the seminars, papers were presented on a number of issues concerned with food production, e.g. soil and water management; nitrogen fixation; problems of arid zone agriculture; animal husbandry; agricultural research systems, and policies that would lead to increased food production.
Orders to: COSTED, 24 Gandhi Mandap Road, Madras - 600 025, India.

Management of Productivity Constrained U.P. Soils. N.K. Mehrotra and V.K. Garg, editors. Indian Society of Soil Science, Lucknow, 1993, vi + 134 p. Paperback.

The state of Uttar Pradesh with 17.3 million ha of arable land has over 1.2 million ha of sodic and saline soils and about twice other unproductive soils or waste lands. In this book, attention is focused on the main constraints limiting crop productivity in this most populous state of India. It has 22 papers presented at the Seminar held at Lucknow in October 1992, grouped in six sections. After interesting papers on mapping of wastelands using remote sensing techniques and low productive soils in Uttar Pradesh, eight papers are concerned with salt-affected soils, four on soils with water excess and erosion, five about soils low in nutrients and two on other soils. The appendix contains the seminar recommendations.
Price: INR 100
Orders to: Secretary, Lucknow Chapter of Indian Society of Soil Science, National Botanical Research Institute, Lucknow-226 001, India.

Crop Residue Decomposition, Residual Soil Organic Matter and Nitrogen Mineralization in Arable Soils with Contrasting Textures. F.J. Matus. Thesis, Wageningen Agricultural University, 1994, 141 p. Paperback.

To evaluate the significance of cropping, soil texture and soil structure for the decomposition of ^{14}C- and ^{15}N-labelled crop residues, a study was conducted in a sand and a clay soil under laboratory and field conditions. The distribution of residual ^{14}C, residual ^{15}N and microbial biomass ^{14}C of different aggregate size classes and physical protection of soil organic matter as indicated by the rates of ^{14}C and ^{15}N mineralization after soil disaggregation were also studied in the same soils. Soil texture and soil structure were not determining factors in the decomposition of residual labelled soil organic matter, but residue type was important for N mineralization soon after incorporation. Recently formed labelled soil organic matter was less well physically protected that older soil organic matter and adsorption of soil organic matter on to silt and clay particles was the main mechanism of physical protection in sand soil. In clay soil the results were not conclusive as regards the main mechanism of protection of recently formed soil organic matter. In conclusion, because soil structure broken up by soil disruption, and soil texture were found to have no effect on the rate of decomposition of recently formed organic matter in soil, these factors do not need to be included when the C and N mineralization from crop residues in arable soils has to be estimated.
Orders to: AB-DLO, Librarian, PO Box 14, 6700 AA Wageningen, the Netherlands.

Environment. P.H. Raven, L.R. Berg and G.B. Johnson. Saunders College Publishing, London, 1993, xxii + 616 p. ISBN 0-03-097483-6. Paperback.

This book is intended to be a contribution to the understanding of the way the world works, and what is happening to it as its human population expands. One of the principals goals in preparing this book was to convey to students an appreciation of the complexity and precise functioning of natural ecosystems. The book begins with an exploration of the basic ecological principles that govern the natural world, and considers the many ways in which humans affect the environment. Later chapters examine in detail the effects of human activities, including overpopulation, energy production and consumption, depletion of natural resources, and pollution. The book integrates important information from a number of different fields, such as biology, geology, chemistry, physics, sociology, government and politics, and demographics.
Price: GBP 17.95.
Orders to: Harcourt Brace & Co, 24-28 Oval Road, London NW1 7DX, England.

Management of Land and Water Resources for Sustainable Agriculture and Environment. Indian Society of Soil Science, New Delhi, 1994, v + 225 p. Paperback.

The Indian Society of Soil Science is one of the oldest soil science societies in the world. It celebrated its Diamond Jubilee in 1994 and the present publication contains the papers delivered at this occasion. The opening address was given by Dr. J.S. Kanwar, former President of the ISSS, while also ISSS's Secretary General Prof. Blum delivered a paper. Papers are concerned with the development of soil and water resources to feed the growing population in a sustainable environment, and the assessment of land resources at a world-wide scale and the development of site-specific technologies.
Orders to: see below.

Soil Management for Sustainable Agriculture in Dryland Areas. Bulletin No.16. Indian Society of Soil Science, New Delhi, 1994, viii + 143 p. Paperback.

This 16th Bulletin in the series of the Indian Society of Soil Science contains the fourteen papers presented at its Annual Convention in 1992. Although mainly con-

cerned with India, much information provided is also of relevance to other dryland regions of the world. Most attention is being given to a variety of more efficient soil management systems, including better water use and conservation. Treated are also such aspects as nutrient management, the use of cropping models and GIS, tillage and the rehabilitation of degraded lands.
Orders to: Indian Society of Soil Science, Indian Agricultural Research Institute, New Delhi-110012, India.

Le Cèdre de l'Atlas. Numéro spécial de Annales de la Recherche Forestière au Maroc. O. M'Hirit, A. Samih and M. Malagnoux, éditeurs. Station de Recherches Forestières, Rabat, 1994. Vol. 1: 361 p. ISBN 9981-824-00-3; Vol. 2: 371 p. ISBN 9981-824-03-8. Broché.

Ces deux volumes reprennent les contributions présentées au cours du Séminaire International tenu à Ifrane en juin 1993. Les différentes communications sont classées selon cinq thèmes: Ecophysiologie et autoécologie (11 comm.); Sylviculture et aménagement (12 comm.); Amélioration génétique et plantation (7 comm.); Protection des cédraies (8 comm.) et Valorisation (7 comm.).
Commandes à: Station de Recherches Forestières, BP 763, Rabat, Maroc.

Mountain Environments and Geographic Information Systems. M.F. Price and D.I. Heywood, editors. Taylor and Francis, Basingstoke, Bristol, 1994. xiv + 309 p. ISBN 0-7484-0088-5. Hardback.

Mountains cover about one-fifth of the Earth's surface and are characterized by great environmental and cultural diversity. They are important for at least half the world's population: as places to live; for natural resources and tourism; and as centres of biodiversity.

Geographic Information Systems (GIS) are increasingly used in mountain areas to record baseline information about the state of the areas and the stresses affecting them; assess methods for monitoring sustainable development; and evaluate scenarios deriving from the interaction of biophysical and social processes. This information provides essential inputs to decision-making at all levels from the local to the global. There are many problems and challenges in applying the essentially two-dimensional technology of GIS to three-dimensional mountain environments. This book considers these issues.
Price: GBP 55.
Orders to: Taylor & Francis, Rankine Road, Basingstoke, Hants. RG24 0PR, U.K.

Managing Pests and Pesticides in Small Scale Agriculture. InZet, Association for North-South Campaign. Reprint 1992, 204 p. ISBN 90-70857-18-9. Paperback.

This book describes integrated pest management in developing countries. A part is dedicated to research and extension in plant pathology, while another part focuses on the way politics can be influenced to reduce the misuse of pesticides. Case studies from Sri Lanka and Peru illustrate the text with concrete situations. Finally, appendices are included listing properties of common pesticides, titles of useful books, and addresses of organizations involved in safe and economic use of pesticides.
Price: NLG 25.
Orders to: Tool Bookshop, Sarphatistraat 650, 1018 AV Amsterdam, the Netherlands.

Chinese Soil Taxonomic Classification (First Proposal). Gong Zitong, editor. Institute of Soil Science, Academia Sinica, 1994, viii + 93 p. Paperback.

Since 1984 soil scientists have been working on a new soil classification for China, which is now published in English as a proposal. It draws on Soil Taxonomy and the FAO-Unesco Soil Map of the World legend, but adds some new diagnostic horizons and characteristics, i.a. for providing a place for the variety of man-made soils. The system has four categories: orders (13), suborders (33), groups (78) and subgroups (301). After an introductory part on the history, the development and use of Chinese soil classification systems, the publication contains a description of the diagnostic horizons and characteristics and a key.
Orders to: Chief, Soil Taxonomic Classification Project, Institute of Soil Science, Academia Sinica, PO Box 821, Nanjing 210008, P.R. of China.

Climate Change and its Biological Consequences. D.M. Gates. Sinauer Associates, Sunderland, 1993, vii + 280 p. ISBN 0-87893-224-0. Paperback.

The book describes the causes of climate and the forces that produce a climate change. Past climates are studied in order to understand the influence of the sun, volcanoes, greenhouse gases, dust, and other forces acting on the Earth's atmosphere. Projected future climate conditions and the possible responses of forests to these changing conditions as shown by forest gap models are a major topic; the boreal ecosystems of northern forests will likely be under the most stress, and possible changes to these systems are discussed. A predicted shift in timing of seasonal events will have tremendous impact on wildlife, as will the changes in their habitats wrought by a warmer world. The ramifications of climate change for agriculture are also projected. Special topics covered in the book include the ozone hole over Antarctica and the progression of depleted stratospheric ozone over other latitudes, along with the potential impact in this depletion on organisms; and the El Niño phenomenon and its influence on our climate.
Price: GBP 16.95.
Orders to: Sinauer Associates Inc, Sunderland, MA 01375, U.S.A.

Soil Hydrology. M. Kutílek and D.R. Nielsen. Catena Verlag, Cremlingen-Destedt, 1994, v + 370 p. ISBN 3-923381-26-3. Paperback.

The text is based upon the authors' teaching and research experience and can serve either as the first reading for future specialists in soil physics or soil hydrology. It is also a source of information on soil hydrology for scientists in agronomy, ecology, water management, etc. The book has the following chapters: the soil porous system, soil water, soil water hydrostatics, hydrodynamics, elementary soil hydrologic processes, estimation soil hydraulic functions, field soil heterogeneity and the transport of solutes in soils.
Price: DEM 59; USD 39.
Orders to: Catena Verlag Distribution, Armelgasse 11, D-35447 Reiskirchen, Germany; *or:* Catena Verlag, PO Box 1897, Lawrence, KS 66044-8897, U.S.A.

Hungarian Contributions to the 15th International

Congress of Soil Science. I. Szabolcs, editor. Agrokémia és Talajtan, Tom.43, No 1-2, 1994, 240 p. Paperback.

This special issue of the well known journal Agrochemistry and Soil Science contains the full papers of all Hungarian contributors who had submitted their manuscripts to the Congress in Acapulco, Mexico, in 1994. It is also the objective of this separate publication to give an overview on the state and recent achievements of soil science in Hungary.
Orders to: Agrokémia és Talajtan, RISSAC, Herman Ottó út 15, H-1022 Budapest II, Hungary.

British-Hungarian Seminar on Sustainable Land Use in Long-Term Field Experiments (Debrecen, 14-15 February 1994). I. Szabolcs, editor. Agrokémia és Talajtan, Tom.43, No 3-4, 1994, 435 p. Paperback.

This issue of the Journal Agrochemistry and Soil Sciencs contains the papers of the above mentioned seminar on soil fertility research for sustainable agriculture and information and tools for environmental policy. The seminar provided also information on plant and soil processes which control soil fertility in long-term field experiments and on the sustainability of agricultural production.
Orders to: Agrokémia és Talajtan, RISSAC, Herman Ottó út 15, H-1022 Budapest II, Hungary.

IUFRO International Guidelines for Forest Monitoring - Directrices Internacionales de IUFRO para la Monitorización de los Recursos Forestales. IUFRO World Series Vol. 5. R. Päivinen, editor. International Union of Forestry Research Organizations, 1994, 54 p. ISBN 3-901347-00-3. (English and Spanish version in one volume).

The world's forests are the focus of international attention because of the many environmental issues being discussed today. In order to understand what is truly happening to our forest land, it is needed to monitor the resources to measure change and to predict change. Monitoring is the periodic observation of selected parameters for quantifying changes over time. Remote sensing and permanent plots are often used to monitor changes in the forest resource base.

These guidelines outline a procedure to increase the ability to share plot information for research, management, inventories, and remote sensing verification. The intended users are those that conduct the collection of field data whether during the course of resource inventories or monitoring studies.
Price: USD 30 (plus mailing charges)
Orders to: IUFRO Secretariat, Seckendorff-Gudent-Weg 8, 1131-Vienna, Austria.

Quantitative Modeling of Soil Forming Processes. SSSA Special Publication 39. R.B. Bryant and R.W. Arnold, editors. Soil Science Society of America, Madison, 1994, 185 p. ISBN 0-89118-814-2. Paperback.

This publication documents the new generation of evolving models to simulate soil formation processes, rate dynamics, and patterns of spatial diversity. Ideally, such simulation models should enhance our ability to scale observations from variable levels of resolution, target information voids, capture intuitive knowledge in a more rigorous analytical framework, and synergistically integrate team efforts among field and modeling expertise.

This volume further illustrates the value of coupling theory and practice in physical and biological application of simulation models. Likewise, it illustrates how sophisticated statistical and Geographic Information Systems (GIS) tools may be used to quantify the complex interconnective spatial and temporal dynamics of soil systems.
Price: USD 24 (advance payment and 10 percent per book for postage is required)
Orders to: see below.

Soil Testing: Prospects for Improving Nutrient Recommendations. SSSA Special Publication 40. J.L. Havlin and J.S. Jacobsen, editors. Soil Science Society of America, Madison, 1994, 216 p. ISBN 0-89118-815-0. Paperback.

Agriculture has been implicated as a major source of surface and ground water contamination by plant nutrients. As environmental concerns related to nutrient use continue to increase, soil testing will be relied on heavily to identify the most profitable and environmentally sound application rates for nutrients. Recent research in soil testing for nitrogen, phosphorous, and potassium have demonstrated the potential for improving the accuracy of predicting optimum nutrient rates, and therefore, reduce the potential for environmental contamination.

The book examines the prospects of improving nitrogen, phosphorus, and potassium recommendations through alternative soil approaches. The contents of this publication are the result of several symposia held at a SSSA annual meeting in Cincinnati, Ohio, November 1993. The purpose of this publication is twofold: (1) to bring together the latest ideas and knowledge for improving nutrient recommendations and (2) to further stimulate additional research and demonstration of alternative soil testing strategies for improving the accuracy of nutrient recommendations. It is these methods that will ultimately improve the reliability of the soil testing/nutrient recommendation system that helps to reduce agriculture's impact on the environment.
Price: USD 30 (advance payment and 10 percent per book for postage is required)
Orders to: see below.

Soil and Water Science: Key to Understanding our Global Environment. SSSA Special Publication 41. R.S. Baker, G.W. Gee and C. Rosenzweig, editors. Soil Science Society of America, Madison, 1994, 103 p. ISBN 0-89118-816-9. Paperback.

Soil and water have played a leading role in the development and advancement of civilization. Where sound management practices have been the norm, civilization has flourished. However, where wasteful policies prevail, civilization declines. All too often the lessons of history have been forgotten or ignored for one reason or another.

In combining the study of historical patterns of natural resource use with the application of the principles of soil and water sciences, the message is made clear - our soil and water resources are extremely vulnerable to mismanagement. Such misuse and short-sighted policies could have disastrous consequences. This publication is the result of an SSSA annual meeting symposium.
Price: USD 30 (advance payment and 10 percent per book for postage is required)

Orders to: see below.

Sewage Sludge: Land Utilization and the Environment. SSSA Misc. Publication. C.E. Clapp, W.E. Larson and R.H. Dowdy, editors. American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, Madison, 1994, 254 p. ISBN 0-89118-813-4. Paperback.

Agricultural utilization of sewage sludge has the potential benefit of utilization of the nutrients and organic matter for crop production and soil management. Other benefits include the prevention of air pollution in the case of incineration and reduction in water contamination in the case of ocean or lake dumping. However, until recently, only inadequate information was available for the safe, efficient use of sludge on agricultural land.

This publication is the result of the University of Minnesota's 1993 conference on sewage sludge. Much progress concerning land utilization of sludge has been made in the last 20 years and is included in this book. A section focuses on the most pressing research needs.
Price: USD 30 (advance payment and 10 percent per book for postage is required)
Orders to: see below.

Physiology and Determination of Crop Yield. K.J. Boote, J.M. Bennett, T.R. Sinclair and G.M. Paulsen, editors. American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, Madison, 1994, 601 p. ISBN 0-89118-122-9. Hardback.

Crop physiology - as the basis of understanding crop growth, development, and management - emerged in the 1950s and 1960s replacing the empirical approaches to crop management of previous decades. Scientific knowledge and understanding of physiological and genetic factors influencing crop yield have advanced considerably during this time. As a result, the decision was made to host a symposium to review the latest scientific advances.

Knowledge and understanding of crop growth processes, particularly relative to root, leaf, and seed growth, has increased significantly. Advances in our insight into metabolic processes have been dramatic, especially for photosynthesis and dinitrogen fixation. Rather than merely review already well-published photosynthetic pathways, the symposium organizers chose to emphasize the regulation and integration of biochemical processes related to photosynthesis, dinitrogen fixation, C metabolism, N metabolism, nutrient uptake, and organ growth. Crop responses to climate change, air pollution, and ultraviolet irradiance were highlighted in this symposium because of their possible impacts on food security and the need to minimize effects of human activities on our environment.
Price: USD 66 (advance payment and 10 percent per book for postage is required)
Orders to: see below.

Agricultural Utilization of Urban and Industrial By-Products. ASA Special Publication Number 58. D.L. Karlen, R.J. Wright and W.O. Kemper, editors. American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Madison, 1995, xvii + 295 p. ISBN 0-89118-123-7. Softcover

This publication contains the proceedings of a symposium held in Cincinnati, Ohio, November 1993, sponsored by Divisions S-6 and S-7 of the Soil Science Society of America and A-5 of the American Society of Agronomy. A total of fourteen chapters deal with topics ranging from the societal, political, and regulatory issues associated with land application to more technical issues such as negative effects on soil moisture, salt levels, pH, and other beneficial effects that by-products may have on soil conditions that affect growth of crops. It provides a compilation of the benefits of applying these by-products to agricultural land and the areas of concern and caution in their use.
Price: USD 26; (advance payment and 10 percent per book for postage is required)
Orders to: see below.

Climate Change and Agriculture: Analysis of Potential International Impacts. ASA Special Publication Number 59. C. Rosenzweig, J.T. Ritchie, J.W. Jones, G.Y. Tsuji and P. Hildebrand, editors. American Society of Agronomy, Madison, 1995, xvii + 382 p. ISBN 0-89118-126-1. Softcover.

This number contains the proceeding of a symposium held in Minneapolis, 1992, organized by Division A-3 (Agroclimatology and Agronomic Modeling) and Division A-6 (International Agronomy) of the American Society of Agronomy.The publication contains four sections: I. Experimental studies of the responses of cotton and rice, crops that are important in international trade, to elevated atmospheric carbon dioxide and to varying temperature and water regimes (2 papers). II. Simulation methodology studies, dealing with the development of modeling techniques to assess the effects of changing carbon dioxide and climate factors on crop growth and yield. Such models are used to evaluate possible adaptations of management practices (4 papers). III. Regional agronomic implications of climate changes as predicted by global climate models (11 papers). IV. Economic implications of the crop yield changes predicted by the preceding studies. Consideration is given to the possible impacts on food security and international trade, affecting developing countries (1 paper).
Price: USD 34; (advance payment and 10 percent per book for postage is required)
Orders to: SSSA Headquarters, Attn: Marketing, 677 South Segoe Road, Madison, WI 53711-1086, U.S.A., Fax: + 1-608.2732021

Sustainable Development of Dryland Agriculture in India. R.P. Singh, editor. Scientific Publishers, Jodhpur, 1995, xi + 544 p. ISBN 81-7233-92-3. Hardback.

Drylands are the fulcrum around which the Indian economy revolves. Despite the impressive irrigation potential created over the years, India will continue to depend on drylands for meeting the ever growing challenge of production of food, fodder, fibre, edible oil, and timber, for the burgeoning human and livestock population. This book gives an update on and comprehensive account of the problems and prospects of dryland agriculture in India. It deals with principles and practices and gives details of the rich Indian experiences gained over the years by Indian scientists, and covers almost all the topics given in the curriculum on dryland agriculture prescribed in Indian agricultural universi-

ties. It also brings together a vast array of information on all aspects related to the improvement of the productivity, profitability, stability and sustainability of dryland farming systems.
Price: Rs 750.
Orders to: Scientific Publishers, P.O. Box 91, Jodhpur, 342 001, India.

Mécanique des Sols. D. Cordary. Lavoisier Tec & Doc, Paris, 1994, xv + 380 p. ISBN 2-85206-987-3. Broché.

Ce livre est issu du cours de mécanique des sols dispensé dans le cadre de la première année du département ingénieur géotechnicien de l'Institut des Sciences et Techniques de Grenoble. L'étude des propriétés du sol est abordée non seulement sous l'angle de la géomécanique mais également sous celui de la géotechnique. Ainsi les sols sont présentés comme des milieux qui peuvent être étudiés avec les outils rigoureux de la mécanique. L'ensemble de leurs propriétés y sont analysées de manière approfondie. Les bases ainsi posées permettent d'aborder ultérieurement sans difficultés l'étude des ouvrages géotechniques.

Après un bref rappel sur les caractéristiques physiques, ce cours présente l'intérêt d'appliquer la mécanique des milieux continus à l'étude des sols, même s'ils ont la particularité d'être polyphasiques. A ce niveau, une discussion approfondie met en évidence la nécessité dans certains cas d'utiliser comme référentiel le seul assemblage de particules solides, débouchant sur la délicate approche de la notion de contrainte effective. Les conséquences de l'application du principe fondamental de la mécanique et de la formule de Darcy sont ensuite examinées. La dernière partie de l'ouvrage est consacrée à la confrontation des résultats théoriques acquis à ce niveau de l'exposé avec les information issues des essais classiques réalisées sur les différents types de sols (en laboratoire ou *in situ*).
Prix: FFR 600
Commandes à: TEC & DOC - Lavoisier, 11 rue Lavoisier, F-75384 Paris Cedex 08, France.

Climate of the Cultivated Field. J. Gli_ski, E. Sikora and R. D_bicki, editor. Instytut Agrofizyki PAN, Lublin, 1994, 167 p. Paperback.

This volume includes 21 papers presented at the 3rd Symposium on Climate of the Cultivated Field, held at Pu_awy, Poland, in October 1992. Among other topics, papers deal with water balances and changes in water cycles due to long and short term climatic variations and their influences on plants and yields; effects of acid rain; variation in radiation and sunshine duration.
Orders to: see below.

Natural and Anthropogenic Causes and Effects of Soil Acidification. R. D_bicki, T. Filipek, J. Gli_ski and E. Sikora, editors. Instytut Agrofizyki PAN, Lublin, 1994, 334 p. Paperback.

This publication includes 56 papers presented at the National Conference held at Lublin, in September 1993. Papers deal with the different forms of natural and human-induced soil acidification through fertilizers and industrial activities and their effects on soils and plants. The papers are for a large part concerned with conditions in Poland, where over 60 percent of the arable land has acid soils. However, the publication is certainly also of interest to scientists outside Poland.
Orders to: Polish Academy of Sciences, Institute of Agrophysics, PO Box 121, Ul. Doswiadczalna 4, 20-236 Lublin, Poland.

***Evaluation of Land Surfaces Cleared from Forests* in the Mediterranean Region during the Time of the Roman Empire.** Paleoclimate Research 10. B. Frenzel, editor. Gustav Fischer Verlag, Stuttgart, New York, 1994, x + 170 p. ISBN 3-437-30773-8 (German edition) 1-56081-405-5 (US edition). Paperback.

The starting point for the workshop of the European Science Foundation, the results of which are presented in this volume, was to evaluate as exactly as possible the area of land cleared from forests in the Mediterranean region during the time of the Roman empire. It was hoped that this period in the development of past civilisations, which has been studied till now by various disciplines, might shed some light on the methodological approach for reconstructing quantitatively the intensity and surface area of former forest clearances and of various types of agriculture practised.

The book contains 14 papers arranged in 4 parts: (1) Methodological approaches towards the problem of land clearance; (2) The botanical record based on regional pollen diagrams; (3) The archaeological evidence based on regional survey and investigations; and (4) Openings for further research activities.
Price: DEM 78; ATS 609; CHF 75.
Orders to: Gustav Fischer Verlag, Postfach 72 01 43, D-70577 Stuttgart, Germany.

Pédologie. Sol, Végétation Environnement. 4è édition. Collection Abrégés des Sciences. Ph. Duchaufour. Masson, Paris, 1995, vii + 324 p. ISBN 2-225-84516-6. Broché.

Cette quatrième édition élargit le cadre de la pédologie au sens strict en montrant les relations qui existent entre le sol, son environnement, la végétation, en un mot l'ensemble du paysage. L'auteur entend montrer que la pédologie est une science de synthèse qui s'appuie aussi bien sur la biologie que sur la géomorphologie, la physique et la chimie: ces différents aspects de la pédologie sont complémentaires et étroitement liés à l'histoire des sols.

Cette nouvelle édition présente d'une manière entièrement nouvelle le problème de la classification des sols, en faisant une large place à la classification FAO/Unesco qui sera prochainement adoptée comme base d'un référentiel international en combinaison avec le WRB (World Reference Basis). Ces considérations théoriques débouchent sur des applications pratiques variées, telle la mise en valeur des terres, la croissance des végétaux, la protection de l'environnement.
Prix: FF 161.
Commandes à: Masson, 120 boulevard Saint-Germain, F-75280 Paris Cedex 06, France.

The Changing Global Environment. N. Roberts. Blackwell Publishers, Oxford, Cambridge, 1994, xii + 531 p. ISBN 1-55786-272-9 (paperback), 1-55786-271-0 (hardback).

This book provides an account of the nature of change in the earth's natural environment in the past, present and future. Taken as a whole it is distinguished by its concern to understand and to link environmental variations at local, regional and planetary scales, but its

clear analyses of human-environment interactions, by its historical perspective, and by an awareness of the social and political causes and consequences of environmental change.

This well-illustrated book is divided into six parts: the nature of environmental change (2 papers), patterns of global climatic change in the distant and recent past and models of the climatic future (3 papers), effects of climatic change on arctic and marine environment (4 papers), the hydrological system (3 papers), tropical environments, humid, arid and savanna (4 papers), and case studies of change in contrasting environments - desert, estuarine, river and mountain.

Price: GBP 18.00 (PB); GBP 60 (HB).
Orders to: Blackwell Publishers, 108 Cowley Road, Oxford OX4 1JF, England; *or:* Blackwell Publishers, 238 Main Street, Suite 501, Cambridge, MA 02142, U.S.A.

Mountain Environment and Development. Constraints and Opportunities. International Centre for Integrated Mountain Development, Kathmandu, 1994, vii + 378 p. Paperback.

This book contains the papers presented at a Symposium held to mark ICIMODS's 10th anniversary, including the thematic presentations, photographic spot presentations, as well as the discussions and main conclusions. Intensive review of the major trends and factors in mountain environment and development was undertaken during the symposium, and the working sessions embrace five major topics: (1) Sustainable and more productive mountain farming; (2) Population and employment challenges in the mountains; (3) Management of mountain infrastructure development; (4) Natural resources' management in a mountain environment; and (5) Integrated planning for environment and development of mountain areas.

Price: USD 5.00 (plus postage USD 5.88 for South Asia, and USD 9.40 for the rest of the world).
Orders to: ICIMOD, G.P.O. Box 3226, Kathmandu, Nepal.

El Estudio del Suelo y de su Degradación en Relación con la Desertificación. J.F. Gallardo Lancho, editor. Ministerio de Agricultura, Pesca y Alimentación, Madrid, 1993. 1870 p.

El XII Congreso Latinoamericano de la Ciencia del Suelo fue organizado por la Sociedad Española de la Ciencia del Suelo (S.E.C.S.) en Sevilla, Septiembre de 1993. El tema del congreso fue: „El estudio del suelo y de su degradación en relación con la desertificación". Las actas del congreso presentaron en tres tomos subdivididos en las secciones siguientes: física del suelo; química del suelo; biología del suelo; fertilidad del suelo; génesis, clasificación y cartografía del suelo; tecnología, uso y evaluación del suelo; mineralogía del suelo; ecología del suelo; mesas redondas.
Orden a: Sociedad Española de la Ciencia del Suelo, Centro de Ciencias Medioambientales, Serrano 115 bis, 28006 Madrid, España.

Advances in Soil Dynamics. Vol.1. ASAE Monograph 12. American Society of Agricultural Engineers, St Joseph, 1994, xviii + 313 p. ISBN 0-929355-52-0. Hardback.

The role of soil dynamics in solving problems and developing technology for things that move across and through soil is recognized as being important around the world. New crop production methods and manufactured products increasingly must rely on the technical advantages gained through the use of soil dynamics information.

This book is the first volume in a new series. This series recognizes the increasing demands for qualitative and quantitative information on soil-machine interactions and physical soil-plant interactions. This first volume covers state-of-the-art information on soil bins, soil physical properties and advances in soil plant dynamics.
Price: USD 42 (plus USD 3.50 postage and handling).
Orders to: ASAE, Dept. 1640, 2950 Niles Road, St Joseph, MI, 49085-9659, USA.

Plants and the Chemical Elements. M.E. Farago, editor. VCH Verlagsgesellschaft, Weinheim, 1994, ix + 292 p. ISBN 3-527-28269-6. Hardback.

How do plants react to elements in the soil? A vital question, particularly in today's world of increasing environmental contamination. The book attempts to give an answer, compiling up-to-date information from many disciplines. Key articles are devoted to: Soil Chemistry and bioavailability; Metal-tolerant plants; Metalloenzymes; Toxic effects of metals; Radionuclides. Moreover, emphasis is placed on environmental aspects, with considerations of plants that hyperaccumulate heavy metals and plants that are indicators for pollution. A discussion of experimental techniques rounds off the book. They include sampling, sample preparation, analytical methods and aspects of quality assurance.
Price: DEM 198; GBP 79.50
Orders to: VCH Verlagsgesellschaft, PO Box 10 11 61, D-69451 Weinheim, Germany; *In USA and Canada:* VCH, 220 East 23rd Street, New York, NY 10010-4606, USA.

LANDSYS, A Land Suitability Assessment for Food Crop Production. L.A. Manrique. Manrique International Agrotech., Honolulu, xiii + 116 p. Paperback.

LANDSYS, a Soil Taxonomy-based land assessment system, has been developed to assist farmers and extension agents in determining whether a land is suited for the production of a specific crop, and to ascertain what kinds of management inputs are required to achieve a given level of production. The principle of matching the soil and environmental requirements of a crop to the characteristics of the land is the foundation of LANDSYS. This system is based on the face that land characteristics needed to assess suitability for food crops can be readily obtained from soil surveys based on Soil Taxonomy. This book describes the conceptual framework of this system, its development, and testing in the field under a wide range of soils and environments.
Price: USD 35, plus handling charges
Orders to: see below.

LEAM, Land Erodibility Assessment Methodology. L.A. Manrique. xii + 28 p. Paperback.

This book describes the LEAM system designed primarily for use in developing countries. LEAM assesses the potential erosion risk of lands in quantitative and operational terms by using information contained in soil surveys based on Soil Taxonomy. Assessment of potential erosion risk is based on three land characteri-

stics: (i) slope hazard, (ii) rainfall erosivity risk, and (iii) intrinsic soil erodibility. Each land characteristic is subsequently defined by other land characteristics such as slope steepness and length, soil moisture regime, and particle-size class and mineralogy class. The LEAM rating framework provides basic information as whether a given land has a certain potential risk, and describes the agricultural limitations associated with that risk.
Price: USD 12, plus USD 2 for handling charges
Orders to: Manrique International Agrotech., PO Box 61145, Honolulu, HI 96839, USA.

Les Sols Salés de l'Oasis d'El Guettar (Sud Tunisien). TDM 100. Thèse de Doctorat. J.O. Job. Editions de l'ORSTOM, Bondy, 1993, xii + 151 p. ISBN 2-7099-1148-5.

La végétation de cet oasis s'étage d'un piémont caillouteux calcaire une sebkha très salée. La mise en place des sols est le fait de l'action conjuguée du colluvionnement et de l'apport éolien. Il s'en suit une répartition des sols qui épouse le relief. La dynamique des sels dans ces sols est étudiée dans le temps et dans l'espace, grâce à la conductivimétrie électromagnétique. Cette technique permet de mettre en évidence les variabilités de la répartition des sels à trois échelles: celle de la planche, celle de la parcelle, celle de l'oasis.
Commandes à: Editions de l'ORSTOM, 72 route d'Aulnay, F-93143 Bondy Cedex, France.

Climate Change, Uncertainty and Decision-Making. G. Paoli, editor. Institute for Risk Research, Waterloo, 1994, vi + 164 p. ISBN 0-9696747-3-2. Paperback.

This is the proceedings of a workshop held in Toronto in February 1994, which addressed a number of topics related to the generation and use of climate change parameters in decisions affected by climate. An important features was to open communication between the providers and users of climate information. Several papers compare techniques for better estimating the likelihood of climatic extremes. The techniques can be broadly separated into two groups, empirical and meteorological.

In providing decision makers with climate change information, priorities are set, assumptions are made, relevant data is collected, models are developed and exercised, and the results are packaged and presented. The papers in this volume address this process from a number of viewpoints.
Orders to: Institute for Risk Research, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1; *or:* BAHC-Core Project Office, Institut für Meteorologie, Freie Universität Berlin, Carl-Heinrich-Becker-Weg 6-10, D-12165 Berlin (Steglitz), Germany.

The Developing World. An Introduction. 2nd edition. E.S. Simpson. Longman Group, Harlow, 1994, xvii + 348 p. ISBN 0-582-21888-8. Paperback.

This fully revised edition incorporating up-to-date data and analysis, introduces the fundamental issues of development in the Third World, and addresses the issues faced by these nations in attempting to secure sustainable economic development. Part one systematically examines the major components of development, such as population dynamics, agriculture and the environment and industrialization. Also discussed are the debate on how best development might be managed, the values underlying development plans and circumstances which have led to the modification of these plans.

Part two examines the translation of ideas into practice in a series of case studies, illustrating particular problems encountered in developing countries. Setting out the development history of twelve countries, it provides evidence to support a number of factors and policies that have proved most successful in promoting developments in a world of conflict, self interest, political ideologies and natural disasters.
Price: GBP 16.99
Orders to: see below.

The Persisting Ecological Constraints of Tropical Agriculture. W. Weischet and C.N. Caviedes. Longman Group, Harlow, 1993, xiv + 319 p. ISBN 0-582-05692-6. Hardback.

This publication is an interdisciplinary investigation into the disparity. It examines the conditions that make the continuing shifting cultivation an ecological necessity and the greatest part of humid tropical lowlands unsuitable for intensive agricultural exploitation, while in ecologically exceptional areas highly productive land use is possible.

Firstly, the authors discuss the findings of expert geoscientists, providing dat in a geoecological context, in order to enable the reader to make evaluations and draw their own conclusions. The interrelationship of parent rocks, climate induced weathering, ecologically decisive soil properties, microorganism activities and structural features of natural forests are thoroughly analyzed. Other aspects given consideration are the decomposition and nutrient provision from the biomass, the chemistry of rain and running waters and the biomass production in natural and artificial plant communities.

Secondly, the authors focus on international efforts to overcome the ecological constraints, and alternative farming practices. Agricultural improvement packages, colonization schemes and integrative approaches such as ecofarming and agroforestry have undergone a critical analysis.
Price: GBP 29.99
Orders to: Longman Scientific and Technical, Longman House, Burnt Mill, Harlow, Essex CM20 2JE, England.

IBSRAM Publications

Land Development for Sustainable Agriculture in Africa. IBSRAM Network Document n∞ 5. B. Hintze, editor. IBSRAM, Bangkok, 1993, viii + 136 p. Paperback.

Since its establishment in early 1988, the AFRICALAND land development network has had three training activities, three annual meetings and research activities in six African countries (Côte d'Ivoire, Ghana, Uganda, Cameroon, Nigeria, and Tanzania). The training activities dealt with 1) methods for site selection and characterization, 2) experimentation and monitoring methodologies, and 3) research into soil management and agroforestry.

The present report covers the activities from April 1988 to September 1992 and gives information on the progress of the network within its six country projects.

The Management of Acid Soils. IBSRAM Network

Document n∞ 6. R.J.K. Myers, editor. IBSRAM, Bangkok, 1993, viii + 313 p. ISBN 974-7605-29-5. Paperback.

The second annual meeting of the network was held in the Philippines in October 1992. The introductions to the ASIALAND sloping lands and acid soils networks were followed by a brief statement on IBSRAM's interest in information and training. A detailed coverage of the Philippine acid soils project was given, and a report stated some of the results obtained from the first three crops grown in two field experiments.

The Management of Sloping Lands in the South Pacific Islands. IBSRAM Network Document n∞ 7. E. Pushparajah, editor. IBSRAM, Bangkok, 1993, ix + 153 p. ISBN 974-89099-4-8. Paperback.

This is the report of the annual review meeting on the subject, held at Fiji in September 1992. Papers and reports presented at the workshop mainly involved progress reports of trials in cooperating countries, and aspects related to the conduct, monitoring, and reporting of the investigations. These were supplemented by reports of the main findings in IBSRAM's ASIALAND network on the management of sloping lands in Asia, the erosion on sugar lands in Fiji, and on the use of erosion data for management planning.

The Management of Sloping Lands in Asia. IBSRAM Network Document n∞ 8. A. Sajjapongse, editor. IBSRAM, Bangkok, 1994, viii + 225 p. ISBN 974-7696-823. Paperback.

The ASIALAND sloping lands network held its fifth annual meeting in September 1993 in China. The objective of the meeting was for cooperators to report their research results of 1992/1993, and to share or exchange information/experiences among themselves and with scientists from other related fields. Another purpose was for the review team to evaluate the network for possible funding for the following phase. The first section of this report includes China's experience, and the second sections contain the network reports from the different countries: China, Indonesia, Malaysia, Philippines, Thailand and Vietnam.
Orders to: IBSRAM, PO Box 9-109, Bangkhen, Bangkok 10900, Thailand.

Sulphur Fertilisers for Indian Agriculture - a Guidebook. 2nd edition. H.L.S. Tandon, editor. Fertiliser Development and Consultation Organisation, New Delhi, 1995, vii + 101 p. ISBN 81-85116-35-0. Paperback.

The aim of this guidebook is to present available information on sulphur fertilisers (finished products as well as minerals such as pyrites and gypsum) so that this resource is utilised in a systematic matter for increasing agricultural production in areas which need S application.

Sulphur deficiencies have been reported in soils from several states in India and the importance of S application is being increasingly recognized. This book is primarily written for extension workers, field staff, training centres, etc. The first edition was published in 1989.
Price: INR 100; outside India USD 30
Orders to: see below.

Micronutrients in Soils, Crops and Fertilisers. H.L.S. Tandon. Fertiliser Development and Consultation Organisation, New Delhi, 1995, vi + 138 p. ISBN 81-85116-36-9. Paperback.

The importance of micronutrient application for sustaining high crop yields and ensuring good quality produce is increasing. Out of seven plant micronutrients (boron, chlorine, copper, iron, manganese, molybdenum and zinc), the ones of greatest practical importance from application point of view at present are zinc followed by iron and boron. Access to reliable technical information on micronutrients, and products through which these can be applied through correct application techniques is very important, particularly at the production, promotion, extension and farmers levels. This ultimately proves beneficial for the planners, producers and consumers alike. This book has been prepared to meet the above requirements. In addition to technical information on micronutrients and their usage, it provides a listing of micronutrient mixtures which have been approved by the state governments, latest information concerning micronutrients in the Fertiliser Control Order, all concerned with India.
Price: INR 150; outside India USD 30
Orders to: see below.

Recycling of Crop, Animal, Human and Industrial Wastes in Agriculture. H.L.S. Tandon, editor. Fertiliser Development and Consultation Organisation, New Delhi, 1995, ix + 148 p. ISBN 81-85116-37-7. Hardback.

One of the aims of this book is to bring sound recycling know-how into the mainstream of agricultural planning, management and input delivery systems. The technologies are appropriate for farm holdings of all sizes. Another aim is to draw attention to the potentials, possibilities and problems of recycling different wastes in agriculture. Proper recycling produces a number of gains all at the same time: (1) supplying essential plant nutrients, (2) improving soil physical properties, (3) reducing their accumulation at or near the sites of production, (4) reducing health hazards, (5) providing employment and income to many, (6) enhancing environment quality which includes the quality of human life and (7) illustrates in a positive and solid manner that man is not just a waste generator but also its wise utiliser/manager.
Price: INR 240; outside India USD 60
Orders to: see below.

Biofertiliser. Technology, Marketing and Usage. M.R. Motsara, P. Bhattacharyya and B. Srivastava. Fertiliser Development and Consultation Organisation, New Delhi, 1995, viii + 184 p. ISBN 81-85116-38-5. Hardback.

This book provides the latest know-how on the production technology, preservation, multiplication, storage, quality control, promotion, marketing, distribution and usage of biofertilisers. It covers all major types of bacterial fertilisers (biofertilisers) including *Rhizobium, Azotobacter, Azospirillum,* Blue Green Algae, Azolla, Phosphate Solubilising Microorganisms and Mycorrhizae.
Price: INR 300; outside India USD 60
Orders to: FDCO, 204-204A Bhanot Corner, 1-2 Pamposh Enclave, New Delhi 110 048, India.

Diversity of Fields and Farmers. Explaining Yield Variations in Northern Cameroon. B. de Steenhuij-

sen Piters. Thesis, Wageningen Agricultural University, 1995, 226 p. ISBN 90-5485-344-1. Paperback.

This research was inspired by the inability of agricultural research to deal adequately with phenomena of variation, diversity and heterogeneity in agriculture. The objective of this study was to contribute to the understanding of diversity in agroecosystems by focusing explicitly on variations of yield and their explanation at field and household level. Between 1991 and 1993, field work was done in one village during which variations in yield of rainfed and dryland sorghum and cotton, field properties, crop and management characteristics and household characteristics were assessed and interpreted.

Orders to: Department of Agronomy, Wageningen Agricultural University, P.O.Box 341, 6700 AH Wageningen, the Netherlands.

Snow and Ice Covers: Interactions with the Atmosphere and Ecosystems. IAHS Publication 223. H.G. Jones, T.D. Davies, A. Ohmura and E.M. Morris, editors. International Association of Hydrological Sciences, Wallingford, 1994, xii + 340 p. ISBN 0-947571-14-0. Paperback.

In order to present a global view of the role of snow and ice on the dynamics of the Earth's physical and biological systems, two symposia were held at the Joint Sixth Scientific Assembly of the International Association of Meteorology and Atmospheric Sciences and Fourth Scientific Assembly of the IAHS in Yokohama, July 1993. This post-published proceedings consists of 23 papers from one symposium and 9 papers of the other one, which have been arranged in three themes: (1) Snow, ice and the atmosphere: climate, mass and energy exchange, snow-cover evolution and distribution; (2) Snow, ice and ecosystems: topography, vegetative cover, snowmelt and runoff processes; and (3) Snow, ice and ecosystems: nutrient dynamics and microbial communities.

Price: USD 60

Orders to: see below.

Variability in Stream Erosion and Sediment Transport. IAHS Publication 224. L.J. Olive, R.J. Loughran and J.A. Kesby, editors. International Association of Hydrological Sciences, Wallingford, 1994, xiv + 498 p. ISBN 0-947571-19-1. Paperback.

This is the pre-published proceedings of a symposium held at Canberra in December 1994. The 54 papers have been grouped into six main themes. The papers on Soil erosion, sediment transport and sediment traces examine variability in erosion and transport, especially the implications of variability on the techniques used. This theme continues in the next section on Flood plains and lake sedimentation which focuses on determining the fate of eroded material and the use of such deposits in the interpretation of past processes and environmental history. The next two sections, Large basins and regional variation and Small basins, concentrate on variability at a range of spatial scales. The penultimate section examines Human impacts on erosion and sediment transport system. The final section titled Techniques outlines the application of new research techniques.

Price: USD 75

Orders to: IAHS Press, Institute of Hydrology, Wallingford, Oxfordshire OX10 8BB, U.K.

High Priorities: Conserving Mountain Ecosystems and Cultures. Worldwatch Paper 123. D. Denniston. Worldwatch Institute, Washington, 1995, 80 p. ISBN 1-878071-24-6. Paperback.

In the lowlands surrounding mountains, millennia of intensifying human use have led to advancing biological impoverishment and cultural homogenization. Mountain peoples, in their vertical archipelagos of human and natural variety, have become the guardians of irreplaceable global assets. Their homelands serve as sloping storehouses of timber, minerals, meat, and hydroelectric power for the surging populations below them. At least half of humanity now depends on mountain watersheds for fresh water. All over the world, expanding pressures are degrading mountain ecosystems. The author examines promising community-based initiatives that integrate conservation and sustainable development, and spells out new priorities for effective action at the regional, national, and global levels.

Orders to: Worldwatch Institute,1776 Massachusetts Ave., N.W., Washington, D.C. 20036, USA.

XIth International Colloquium on Soil Zoology. Acta Zoologica Fennica no. 196. Finnish Zoological and Botanical Publishing Board, Helsinki, 1995, 384 p. ISBN 951-9481-41-9. Paperback.

The biological processes in the soil are of crucial importance in the functioning of whole ecosystems. Human activities are increasingly intervening in these processes, from local to global scale. Soil organisms are involved in the transformations and pathways of chemicals, formation and loss of productivity, etc. For proper management and conservation of biota, we need a better understanding of the living soil system. Therefore, the main theme of this colloquium held in Jyväskylä, Finland, from 10-14 August 1992, was „Soil organisms and soil health".

This volume contains the papers and posters which were presented at this colloquium, divided into 5 sections: Soil fauna and soil processes; Interspecific interactions in the soil community; General soil ecology; Effects of soil contaminants on faunal activities; and Applying organisms in soil management.

Price: FIM 280

Orders to: Tiedekurja Oy, Kirkkokatu 14, FIN-00170 Helsinki, Finland.

Humic Substances of Soils and General Theory of Humification. Russian Translation Series 111. D.S. Orlov. A.A. Balkema, Rotterdam, 1995, viii + 323 p. ISBN 90-6191-955-X. Hardback.

The author has summarised results of the latest studies on the composition, structure and properties of humic substances, which are the largest and the most important component of organic matter of different types of soils. He has examined the group and fractional composition of humus of the principal types of soils of Russia and other countries, highlighted the dependence of their formation on bioclimatic conditions and economic activity of man. A probable structure of humic acids - the most important component of humus - has been proposed and the general theory of humification discussed. Recommendations have been made for forecasting change of the humus state of soils in the course of their agricultural exploitation and for improving

the humus state of cultivated soils.
Price: NLG 165, USD 95, GBP 61.
Orders to: A.A. Balkema, P.O.Box 1675, 3000 BR Rotterdam, The Netherlands *or* A.A. Balkema Publishers, Old Post Road, Brookfield, VT 05036-9704 U.S.A.

Catalogo de Suelos de la Comunidad Valenciana. J. Forteza, J.L. Rubio, E. Gimeno y col. Generalitat Valenciana, Consellería d'Agricultura, Pesca y Alimentació, Valencia, 1995, 199 p. ISBN 84-482-0851-X.

El objetivo principal de esta monografía es dar a conocer, de una forma sistematizada, la riqueza y variedad de los suelos valencianos.

Se presenta en primer lugar el marco biofísico de la Comunidad, destacando las características y procesos que repercuten con mayor incidencia en la diferenciación del suelo: litología, clima, topografía y vegetación.

En la segunda parte se han selecionado los suelos representativos de cada unidad o clase taxonómica de la sistemática FAO-UNESCO, junto con la información general sobre sus características definitorias, procesos edáficos más importantes y problemática de su uso, proporcionando información detallada sobre cada uno de *los perfiles representativos de los suelos.*
Precio: 4.450 ptas.
Pedidos: Sendra, Taronja 16, 46210 Picanya (Valencia), España.

Remote Sensing and GIS in Ecosystem Management. V.A. Sample, editor. Island Press, Washington, 1994, xiii + 369 p. ISBN 1-55963-285-2 (PB) 1-55963-284-4 (HB).

Ecologists and resource managers increasingly are confronted with issues surrounding the identification, characterization, and protection of forest ecosystems. Recent advances in remote-sensing technology and the processing of remote-sensing data through geographic information systems (GIS) present them with a tremendously valuable tool - but only if they are able to understand its capabilities and capture its potential.

Inspired by this need, the book offers an examination of current issues, practices, successful applications and problems facing remote sensing and GIS technologies. It considers: (i) the need for landscape-scale analysis to support forest ecosystem research and management, (ii) current challenges in the development of remote-sensing/GIS applications, and (iii) the potential for further development or declassificaiton of military and aerospace remote-sensing/GIS technologies.

In case studies from four major US forest regions, ecologists and resource managers describe their information needs, and a remote-sensing/GIS applications specialist describes the current and emerging technological capabilities for addressing those needs.
Price: USD 29.95 (PB); 49.95 (HB)
Orders to: Island Press, 1718 Connecticut Avenue, N.W., Suite 300, Washington D.C., 20009, USA.

Recherches-système en Agriculture et Développement Rural/Systems-oriented Research in Agriculture and Rural Development. M. Sebillotte. CIRAD, Montpellier, 1994, 1008 p. ISBN 2-87614-181-7. Français et Anglais/French and English.

Les mutations des agricultures à travers le monde, les évolutions de leurs contextes socio-économiques depuis quelques décennies sont considérables et, très probablement, nous entrons dans une ère de changement et d'incertitude permanents: il n'est plus possible de penser l'agriculture sans la resituer dans le développement rural et celui-ci dans le développement global. Ces constatations, aujourd'hui largement admises, impliquent de repenser les outils méthodologiques disponibles pour l'analyse, le diagnostic et l'action.

Cet ouvrage regroupe plus de 200 communications présentées au symposium international tenu à Montpellier en novembre 1994. Sept grands thèmes sont développés: méthodes, environnement, agriculture intensive, savoirs paysans, organisations rurales, formation et politique agricoles.

Agriculture throughout the world has changed considerably over the past few decades; related socio-economic conditions have also evolved. We are probably entering an era of permanent change and uncertainty. Agriculture cannot be dissociated from rural development, and rural development from global change. These observations only confirm the need to rethink the methodological tools for analysis, diagnosis, and action.

This volume brings together more than 200 papers presented at the international symposium held at Montpellier in November 1994. The papers are arranged in seven main themes: methods, environment, high input agriculture, indigenous knowledge, local organisations, training and agricultural policy.
Price: FFR 360
Orders to: CIRAD-SAR Service Edition, BP 5035, F-34032 Montpellier Cedex 1, France.

Climatic Change and Geomorphology in Tropical Environments. J. Alexandre, M. De Dapper and J.-J. Symoens. Royal Academy of Overseas Sciences, Brussels, 1994, 258 p. Paperback.

This colloquium was held in May 1992 in Belgium and grouped about 150 participants. It took place in connection with the Symposium *Biological Indicators of Global Change*. This volume includes 7 papers, each concerning a different region of the world: Central Australia, Colombia, the Pacific plate, South and South-east Asia, the Sahara, Central Africa, and Africa.
Orders to: Royal Academy of Overseas Sciences, Rue Defacqz 1, Boîte 3, B-1050 Brussels, Belgium.

Earthworms, Soil-aggregates and Organic Matter Decomposition in Agro-ecosystems in The Netherlands. J.C.Y. Marinissen. Thesis, Wageningen Agricultural University, 1995, 153 p. ISBN 90-5485-356-5. Paperback.

The relationships between earthworm populations, soil aggregate stability and soil organic matter dynamics were studied at an experimental farm in the Netherlands. The objectives were to study the influence of agricultural management practices on earthworm populations and the role of earthworms in the formation of soil structure and the breakdown of organic matter.
Orders to: Dept. of Soil Science and Geology, Wageningen Agricultural University, PO Box 37, 6700 AA Wageningen, the Netherlands.

Compilation of a Global Inventory of Emissions of Nitrous Oxide. A.F. Bouwman. Thesis, Wageningen Agricultural University, 1995, 141 p. ISBN 90-5485-364-6. Paperback.

In recent years we have become increasingly aware of how strongly the physical and chemical properties of the Earth's atmosphere are influenced by fluxes of trace gases from natural and anthropogenic sources. One of these gases is nitrous oxide (N_2O), or laughing-gas. It plays a role in the atmospheric radiative balance and in the stratospheric ozone chemistry. Many major and minor natural and anthropogenic sources of nitrous oxide have been identified, yet there is considerable uncertainty in the source strengths. This study concentrates on the nitrous oxide emissions from soils. However, for validation of source estimates an atmospheric transport model was used, which in turn required inclusion of estimates for all known sources in the global inventory.
Orders to: RIVM, PO Box 1, 3720 BA Bilthoven, the Netherlands.

Land Use Systems Analysis as a tool in Land Use Planning, with special reference to North and West African agro-systems. N. van Duivenbooden. Thesis, Wageningen Agricultural University, 1995, 175 p. ISBN 90-5485-370-0. Paperback.

The various multidisciplinary projects presented in this thesis, in hindsight, all contributed to a new approach to land use planning. Hence, their results are placed in a holistic perspective via this approach. Part A presents a method for characterizing land use on the basis of transect surveys. The interactive multiple goal linear programming model is described as a method to quantify natural and human resources, and to analyze the relations between various crop and animal husbandry systems. In Part B, nutrient relations are examined with the aim of arriving at fertilizer recommendations for cereals through field experimentation, and literature review and simulation modelling. Additionally, the effects of grazing on subshrubs in Egypt are examined by field experiments and simulation to quantify the availability of this feed resource. Part C shows possible land use options, on the basis of a simulation model for managing integrated small ruminant - barley - subshrub systems, and a multiple goal linear programming model to examine the importance of fertilizer availability for self-sufficiency in food. A synthesis presents 'Land Use Systems Analysis' after evaluating the current methods of land use planning. The importance of goals, scales, tools, and the time-path for attaining goals are discussed, and recommendations are made for future application of land use systems analysis.
Orders to: SC-DLO, PO Box 125, 6700 AC Wageningen, the Netherlands.

Beyond Farmer First. I. Scoones and J. Thompson, editors. Intermediate Technology Publications, London, 1994, xvi + 301 p. ISBN 1-85339-250-2 (Paperback) 1-85339-237-5 (Hardback).

The interest and support that the *Farmer First* philosophy has received has led to a virtual revolution in the agricultural sciences. The purpose of the present book is to reveal how agricultural research and extension, far from being discrete, rational acts ,are in fact part of a process of coming to terms with conflicting interests and viewpoints, a process in which choices are made, alliances formed, exclusions effected and worldviews imposed.

This book consists of thirty-six contributions representing the disciplines of agronomy, agricultural science, anthropology, ecology, entomology, forestry, geography, management science, pedagogy, sociology and others.
Price: GBP 3.95, USD 7.95 (PB); GBP 14.95, USD 28.50 (HB)
Orders to: see below.

Living with Uncertainty. New directions in pastoral development in Africa. I. Scoones, editor. Intermediate Technology Publications, London, 1994, xiv + 210 p. ISBN 1-85339-235-9 Paperback.

This book examines the management and policy implications of this new ecological thinking for pastoral development in dryland areas. With examples drawn from all over Africa, it examines the consequences of living with uncertainty for pastoral development planning, range and fodder management, drought response, livestock marketing, resource tenure, institutional development and pastoral administration. By offering new directions for field development workers, researchers and policy planners, this publication illustrates in practical terms a future for pastoral development in dryland Africa that both recognizes the importance of pastoral livelihoods and the significance of environmental variability.
Price: GBP 6.95
Orders to: see below.

Hill Irrigation. Water and development in mountain agriculture. L. Vincent. Intermediate Technology Publications, London, on behalf of the Overseas Development Institute, 1995, xii + 220 p. ISBN 1-85339-171-9 Paperback.

Irrigation is often a vital element in the livelihood options of many mountain people: yet it is a technology for which mountain environments can provide specific and special challenges. This book examines the distinctive engineering, production and water management practices of hill irrigation, and also reviews past experiences and future options in promoting irrigation as a means to rural transformation in mountain regions.

The book starts with the premise that farmers practising hill irrigation have rarely received the support they need relative to their overall livelihood strategies, and it demonstrates that better policies and programmes could emerge if some critical issues were addressed. Overall, the book provides an interdisciplinary perspective on the interaction of technical and social adaptations that make hill irrigation a feasible, viable and even sought-after technology in a vulnerable and often difficult environment. It also presents an interdisciplinary critique of studies on the environment and development of mountain regions. Only an integrated perspective can stimulate workable policies to support both mountain regions in general, and hill irrigation in particular. The survey is accompanied by a bibliography of over 500 works on the subject.
Price: GBP 9.95; USD 19.50.
Orders to: Intermediate Technolgy Publications, 103-105 Southampton Row, London WC1B 4HH, England.

Changes in Land Use and Land Cover: A Global Perspective. W.B. Meyer and B.L. Turner II, editors. Cambridge University Press, Cambridge, New York, 1994, xi + 537 p. ISBN 0-521-47085-4. Hardback.

This book deals with the relationship between land

use and land cover: between human activities and the transformation of the Earth's surface. It describes the recent changes in the world's farmland, forests, grasslands and settlements, and the impacts of these changes on soil, water resources and the atmosphere. It explores what is known about the importance of various underlying human sources of land transformation: population growth, technological change, political-economic institutions, political structure, and attitudes and beliefs. Three working group reports outline important avenues for future research: the construction of a global land model, the division of the world into regional situations of land transformation, and a wiring diagram to structure the division of research among fields of study.
Price: GBP 35
Orders to: Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU, England; *or:* Cambridge University Press, 40 West 20th Street, New York, NY 10011-4211, U.S.A.

Stressed Ecosystems and Sustainable Agriculture. S.M. Virmani, J.C. Katyal, H. Eswaran and I.P. Abrol, editors. Science Publishers, Lebanon, 1995, xi + 441 p. ISBN 1-886106-14-2. Hardback.

Amongst the various concerns on sustaining agriculture to meet the expanding food needs of the future, the question of maintaining and improving ecosystem quality has emerged as an important issue. Global changes due to human pressure on the resource-limited world are threatening to degrade the carrying capacity of land. Ecosystems that are degraded or those that have reached a stage of degradation such that their original biotic communities (or agriculture) cannot be supported any longer are considered as stressed. Degradation results when land-use requirements are not matched by land qualities. Stressed environments occur mainly in developing semi-arid tropical counties where a web of inter-related reinforcing factors maintains rural poverty, unplanned population growth, expansion of framing into marginal lands, deforestation, soil erosion, water pollution, degradation of land and unsustainable agriculture.

A group of scientists met at Hyderabad in February 1993 to devise alternate systems of land management that would restore degraded lands back to productivity, optimize natural resource use, and stabilize dryland production. The set of 34 invited papers included in this volume attempt to provide insights in a holistic multidisciplinary approach on the constraints that undergird technologies for sustainable land-use in stressed environments.
Price: USD 80
Orders to: see below.

Tropical Ecosystems. A synthesis of tropical ecology and conservation. M. Balakrishnan, R. Borgström and S.W. Bie. Science Publishers, Lebanon, 1994, x + 441 p. *ISBN 1-881570-24-X. Hardback.*

Various aspects of tropical ecosystems have been one of the major subjects of recent investigations. The need for conservation of natural habitats, particulary in the tropics, is stressed as the tropics are the home of millions of species of plants and animals. Unfortunately, the same region also has the highest human population density and has the related problems of human interventions in natural ecosystems. Further, the tropical flora and fauna are less intensively studied in relation to their environment when compared to those in the temperate regions.

The contributors to this book have analyzed tropical ecosystems with a balanced coverage of topics such as marine fresh water and terrestrial communities, their problems of existence, development programmes implemented, conservation-oriented strategies for development of the valuable tropical natural resources and prospects of programmes aimed at sustainable development.
Price: USD 69
Orders to: Science Publishers, 52 LaBombard Road North, Lebanon, NH 03766, USA.

Arid Ecosystems. Advances in Geoecology 28. H.-P. Blume and S.M. Berkowicz. Catena Verlag, Reiskirchen, 1995, v + 229 p. ISBN 3-923381-37-9. Hardbound.

Most continents of the Earth have arid and semi-arid regions. These regions contain 20% of the world's population and comprise over 30% of the world's total land area. Many developing countries are composed of extensive arid and/or semi-arid areas, where the needs of the rapidly increasing population have often led to misuse of the land. In recent years the consequences of such misuse have been compounded by drought, initiating a severe desertification process. Desert ecosystems are so delicately balanced and fragile such that once disturbed they may require a long period of time to recover.

Part of the papers in this book were presented at a workshop on the „Importance of Physical Factors in Arid Ecosystems Research", held in 1990 at Kiel, Germany. Besides these papers, the book also contains information on projects in progress or referred to at the meeting and which have since come to fruition. The papers fall into four categories: soils, soil organisms, vegetation, and ecology.
Price: DEM 189, USD 126.
Orders to: Catena Verlag, Ärmelgasse 11, D-35447 Reiskirchen, Germany *or* Catena Verlag P.O.Box 1897, Lawrence, KS 66044-8897, U.S.A.

Land Degradation: Creation and Destruction. D.L. Johnson and L.A. Lewis. Blackwell Publishers, 1995, xx + 335 p. ISBN 0-631-19244-1 (paperback) 0-631-17997-6 (hardback).

This book describes a decline in natural, biological productivity that is either irreversible or which may not be recovered for at least one human generation. The causes and forms of land degradation - as well as the means of managing and controlling it - form the subject of this book. The authors characterize land degradation as either unintentional and unforecast or intentional and creative, where zones have been deliberately sacrificed in order to achieve greater total productivity in the meeting of social needs. This distinction provides an important basis for analyzing the economic and cultural causes of degradation. To this the authors add the further dimension of degradation that takes place through processes that are themselves either wholly or partly natural. The failure to recognize the complex causes of land degradation is, they argue, one of the main reasons why it has been so difficult to control.
Price: GBP 19.99, USD 29.95 (PB); GBP 60, USD

74.95 (HB)
Orders to: Blackwell Publishers, 108 Cowley Road, Oxford OX4 1JF, England; *or:* Blackwell Publishers, 238 Main Street, Cambridge MA 02142, USA.

Sustainable Management of Soil Resources in the Humid Tropics. R. Lal. United Nations University Press, Tokyo, 1995, xvii + 146 p. ISBN 92-808-0876-1. Paperback.

Misuse of the soil and inappropriate agricultural systems are causing serious degradation of the humid tropical eco-region and perpetuating food shortages, malnutrition, and poor standards of living. What is needed are sustainable agricultural systems that can satisfy human needs while maintaining soil fertility and the integrity of the environment. This publication makes available research information on scientifically proven methods of deforestation for conversation to agricultural land use, and soil and crop management systems that allow for the sustained use of soil and water resources in the humid tropics. The reader will find numerous examples of appropriate techniques with explanations of their impacts on production, soil quality, and the environment. Information is provided on the characteristics of an improved farming system; new land development; run-off management and erosion control; nutrient management; and, in the final section, research and development priorities are outlined.
Price: USD 35 (airmail USD 40); Developing countries USD 17.50.
Orders to: see below.

The Fragile Tropics of Latin America. Sustainable management of changing environments. T. Nishizawa and J.I. Uitto, editors. United Nations University Press, Tokyo, 1995, x + 325 p. ISBN 92-808-0877-X. Paperback.

One dilemma confronting the countries of Latin America is expressed in the desire, on the one hand, to exploit the resources of their tropical regions for economic development and the growing concern, on the other, about the ecological fragility of these regions and the realization of the urgent need to find sustainable alternatives to the prevailing, destructive models of economic development.

This dilemma forms a major theme of this study of the fragile tropics of Latin America; grouped into the three areas of Peruvian and Brazilian Amazonia, Northeast Brazil, and tropical Latin America as a whole, the individual chapters cover such topics as the fragility of tropical ecosystems; human-induced changes in the neotropics; interactions and complementarity between tropical and non-tropical regions; and sustainable technological, cultural, and land-tenure strategies for the tropics. The discussions also address such questions as the palaeoclimatic history of Amazonia and the size and antiquity of pre-European contact Amerindian populations. The book stresses the need to continue to undertake scientific research, fieldwork, and primary data-gathering in order to ensure a sustainable use of the fragile tropics of Latin America.
Price: USD 35
Orders to: United Nations University Press, 53-70 Jingumae 5-chome, Shibuya-ku, Tokyo 150, Japan.

Regenerating Agriculture. Policies and practice for sustainability and self-reliance. J.N. Pretty. Earthscan, London, 1995, ix + 320 p. ISBN 1-85383-198-0. Paperback.

This volume looks at the scale of the challenge facing agriculture today and details the concepts and characteristics of alternative, sustainable agriculture practices. The author draws together new empirical evidence from a diverse range of agroecological and community settings to show the impacts of more sustainable practices. Using 20 detailed case studies, and field and community-level data from more than 50 projects and programmes in 28 countries, he identifies the common elements of success in implementing sustainable practices and shows how to replicate them. In addition, he looks at the existing policy frameworks and institutional processes, and sets out 25 alternative policies which are known to work to support the shift to greater self-reliance and sustainability in agriculture.
Price: GBP 12.95
Orders to: Earthscan Publications Ltd, 120 Pentonville Road, London N1 9JN, England.

On-Farm Research. An annotated bibliography. N. Clinch. Natural Resources Institute, Chatham, 1994, vii + 127 p. ISBN 0-85954-371-4. Paperback.

Whereas the consequent advances in diagnostic survey methods have been well documented, on-farm research on screening and verification of technologies has not been adequately collated. This publication pulls together some 3000 references to the work in this area concentrating on the four research themes of institutional organization, planning, experimentation and verification, together with a general section.
Price: GBP 15.
Orders to: see below.

Revised Classification of the Soils of Belize. NRI Bulletin 59. I.C. Baillie, A.C.S. Wright, M.A. Holder and E.A. FitzPatrick. Natural Resources Institute, Chatham, 1993, vii + 71 p. ISBN 0-85954-344-7. Paperback.

This volume rounds off the soils work done in the course of a series of assessments of the land resources of Belize by NRI in 1986-1992. It presents the final revised version of the soil classification developed during the assessments, and relates it to classification systems that have been used previously in the country and to FAO/Unesco system and to Soil Taxonomy.
Price: GBP 10.
Orders to: see below.

Soil and Water Conservation in Semi-Arid Kenya. NRI Bulletin 61. R.M. Kiome and M.A. Stocking. Natural Resources Institute, Chatham, 1993, v + 59 p. ISBN 0-85954-359-5. Paperback.

In this bulletin, the performance of soil and water conservation measures in rainfed cropping in the drier parts of Kenya is investigated, and the results of technical and economic analyses shown. Particular emphasis is given to the yield benefits and economic viability of crop production systems for the small-scale and most vulnerable of rural land users.
Price: GBP 10.
Orders to: Natural Resources Institute, Central Avenue, Chatham Maritime, Kent, ME4 4TB, U.K.

Chemical Fate and Transport in the Environment.

H.F. Hemond and E.J. Fechner. Academic Press, San Diego, London, 1994, xi + 338 p. ISBN 0-12-340270-0. Hardback.

This book covers the fundamental principles of mass transport, chemical partitioning, and chemical transformation in surface waters, in groundwater or subsurface environments, and in the atmosphere. Each of these three major environmental media are introduced by descriptive overviews, including the controlling physical, chemical, and biological processes. The text emphasizes intuitively based mathematical models for chemical transport and transformations within these three environmental media. All chapters are followed by exercises for university students at graduate level.
Price: USD 49.95
Orders to: see below.

Mineral Nutrition of Higher Plants. 2nd edition. H. Marschner. Academic Press, London, San Diego, 1995, xv + 889 p. ISBN 0-12-473543-6. Paperback.

The second edition of this text retains the structure of the first, being divided into two parts: Nutritional Physiology and Soil-Plant Relationships. In Part one, more emphasis has been placed on root-shoot interactions, stress physiology, water relations, and functions for micronutrients. In view of the world-wide increasing interest in plant-soil interest, Part two has been considerably altered and extended, particularly on the effects of external and internal factors on root growth and on the root-soil interface. With a 180-page list of references and a very useful index, this book remains a financially affordable book for advanced students and researchers.
Price: GBP 29.95
Orders to: Academic Press Ltd., 24-28 Oval Road, London NW1 7DX, U.K.; *or:* Academic Press Inc., 1250 Sixth Avenue, San Diego, CA 92101-4311, USA.

Soil Degradation in India: Status and Impact. J. Sehgal and I.P. Abrol. National Bureau of Soil Survey and Land Use Planning, Nagpur, 1994, 80 p. + map. ISBN 81-204-0931-0. Paperback.

This study was intended to analyze existing information on soils to arrive at, as a first approximation, conclusions on soil degradation status, including the kind, degree and extent of different problems, their severity, and to highlight the impact of soil degradation on agricultural productivity for developing future strategies. The map at a scale of 1:4,400,000 presents the human-induced soil degradation status and has 48 different mapping units. This interesting publication follows the criteria developed for the UNEP/ISRIC Global Assessment of Human-induced Soil Degradation (GLASOD) project of 1992.
Orders to: Oxford & IBH Publishing Co. Pvt. Ltd., 66 Janpath, New Delhi 110 001, India.

Le Parc National de Taï, Côte d'Ivoire. I. Synthèse des connaissances et II. Bibliographie. Tropenbos Series 8. E.P. Riezebos, A.P. Vooren et J.L. Guillaumet (éds. I); P.H.M. Sloot et G.W. Hazeu (éds. II). La Fondation Tropenbos, Wageningen, 1994, 322 p. + disquette. ISBN 90-5113-020-1. Cartonné.

La première partie de cette étude comporte les synthèses des principaux aspects (historique, physique, biotique, socio-culturel, etc.) de l'Espace Taï. Cette partie débouche sur une présentation des principales menaces qui pèsent sur le Parc, et montre le rôle que la recherche scientifique pourra jouer comme un des moyens pour y faire face. La deuxième partie contient la bibliographie. Les quelques 2000 titres identifiés y sont mentionnés par auteur. Le livre est accompagné d'une disquette (programme Cardbox), permettant de trier les documents par sujet, année de publication et endroit où le document peut être consulté. La disquette contient également les abstraits d'environ 800 documents importants.
Prix: NLG 100.
Commandes à: voir ci-dessous.

A Land-ecological Study of Soils, Vegetation and Plant Diversity in Colombian Amazonia. Tropenbos Series 12. J.F. Duivenvoorden and J.M. Lips. The Tropenbos Foundation, Wageningen, 1995, 438 p. ISBN 90-5113-024-4. Paperback.

The main objective of this study is to obtain insight in spatial patterns and interrelations of geomorphology, soils, humus forms, plant diversity and composition of the vegetation in the middle Caquetá area of Colombian Amazonia, in order to provide base-line information for evaluation and planning procedures. The information presented is mainly the result of a land-ecological survey of this area at scale 1:100.000, resulting in a fully integrated correlation of soil and phytosociological data.
Price: NLG 120
Orders to: The Tropenbos Foundation, PO Box 232, 6700 AE Wageningen, the Netherlands.

Die Ökozonen der Erde. 2. Auflage. J. Schultz. Verlag Eugen Ulmer, Stuttgart, 1995, 535 S. ISBN 3-8001-2659-8. Taschenbuch.

Das Buch versteht sich als grundlegende Einführung in die zonale Gliederung der Erde nach naturräumlichen Aspekten. Der Festlandsbereich wird in neun Geozonen unterteilt. Die entsprechenden Kapitel behandeln jeweils die Hauptabschnitte Verbreitung, Klima, Hydrologie, Boden, Relief, Vegetation und Tierwelt sowie Bevölkerung und Wirtschaft. Das hier angewandte Konzept zur erdräumlichen Gliederung und inhaltlichen Fassung der Zonen geht neue Wege und berücksichtigt insbesondere die moderne ökologischen Untersuchungen, bietet eine Darstellung der Böden nach dem jüngsten Stand der Bodenklassifikation und damit auch wichtige Informationen zu den Nahrungspotentialen.
Preis: DM 39.80
Bestellungen an: Verlag Eugen Ulmer, Postfach 700561, 70574 Stuttgart, Deutschland.

The Ecozones of the World. The ecological divisions of the geosphere. J. Schultz. Springer-Verlag, Berlin, New York, 1995, x + 449 p. ISBN 3-540-58293-2 (German edition) 0-387-58293-2 (US edition). Hardback. Translation of the book mentioned above by I. and D. Jordan.

Recent studies have greatly contributed to a better understanding of the ecosystem Earth. This abundantly illustrated book provides a fundamental introduction to the ecological zones of the geosphere. Nine terrestrial ecozones have been distinguished and described in individual chapters with respect to: distribution, climate, relief/hydrology, soil vegetation/animal life, and

land use. Nine terrestrial ecozones are distinguished and described in separate chapters. Other features and processes include weathering of rocks, erosion and sedimentation processes, soil formation, solar radiation, growing seasons, moisture regime, vegetation structure and dynamics, nutrient cycling, energy fluxes, ecosystem models, agricultural use and potential.
Price: DEM 128; ATS 998.40; CHF 123.
Orders to: Springer-Verlag, Tiergartenstrasse 17, D-69121 Heidelberg, *or:* Springer-Verlag, 175 Fifth Avenue, New York, NY 10010, U.S.A.

The Plant Health Management Series. The American Phytopathological Society, St. Paul.

In this new series, attention is being given to crop science, soil science and plant nutrition, providing crop health advice for all stages of production. These holistic volumes of 100-200 pages, with many photographs and illustrations cover now wheat (1991), potato (1993) and peanut (1995).
Requests to: The American Phytopathological Society, 3340 Pilot Knob Road, St. Paul, MN 55121-2097, USA.

Illinois Agronomy Handbook 1995-1996. University of Illinois, Urbana, 1994, vi + 201 p. Paperback.

This is a very practical publication for extension workers, farmers and others interested in agricultural production, its prospects and problems, in the State of Illinois, USA. This handbook can serve as an example of comparable books, which appear in other states.

For a nominal fee the Univeristy of Illinois has produced a clearly written text about suggested agronomic management practices for the production of grain crops, e.g. corn, wheat, oats, barley, sorghum; cover crops; alternative crops such as sunflower, rape and buckwheat; hay, pasture and silage, and seeds. Furthermore, it has chapters about water quality and management, soil testing and fertility, soil management, weed control, pest and disease control.
Price: USD 6 (prepayment required)
Orders to: University of Illinois, Office of Agricultural Communications and Education, 67 Mumford Hall, 1301 West Gregory Drive, Urbana, IL 61801, USA.

Dambo Farming in Zimbabwe: Water management, cropping and soil potentials for smallholder farming in the wetlands. R. Owen, K. Verbeek, J. Jackson and T. Steenhuis. Cornell International Institute for Food, Agriculture and Development, Ithaca, 1994, x + 193 p. Paperback.

This volume presents the papers given at a workshop held in Harare in September 1992. It deals with the role dambos, or wet areas, play in agricultural production in communal lands in Zimbabwe. Dambo wetlands are often found in southern Africa. They can hold water long enough to allow crops to grow during the dry season. The role of dambos for food security has been studied for some time now but research results have not been divulged on a broad scale. The conference was organized to make up for this lack of information. These proceedings provide new information on the ontogeny of dambos and their susceptibility to degradation, and describe new methodologies for the study of dambo water supplies. The papers are divided in 4 sections: Water management; Policy and Socio-Economic Issues; Soil Science and Geology; Recommendations.
Price: USD 10
Orders to: Steve Kearl, CIIFAD, Box 14 Kennedy Hall, Cornell University, Ithaca, NY 14853, USA.

Research Policies and Management for Agricultural Growth and Sustainable Use of Natural Resources. International Service for National Agricultural Research, The Hague, 1995, vii + 60 p. ISBN 92-9118-022-X. Paperback.

This report records the ideas, discussions, recommendations, and conclusions of a meeting on research policies and management for agricultural growth and the sustainable use of natural resources. This workshop narrowed the focus of discussion in two ways. First, it looked at a specific research issue over which there is growing consensus: the need to reconcile national development goals for agricultural science with protection of the natural environment. Second, considerably more attention was devoted to the institutional and management implications of incorporating natural resource management concerns into research agendas than to policy questions. In short, the predominant perspective was that of national research leaders rather than of national policy-makers, although the latter were represented at the meeting, along with donor agencies and regional research organizations.
Orders to: see below.

Survival in the Sahel. An ecological and development challenge. K.M. Leisinger and K. Schmitt, editors. International Service for National Agricultural Research, The Hague, 1995, xiii + 211 p. ISBN 92-9118-020-3. Paperback.

This book recounts the developmental situation of the Sahel. Using practical examples and sound data, it shows how past development strategies have contributed to the region's deteriorating socioeconomic and environmental conditions. It also shares some of the success stories of the last two decades, recommending new development approaches, and presenting some alternative ways to deal with the present Sahelian situation.

The book is divided in two parts: Part I discusses the Sahel, its geography, history, environment and socioeconomics; Part II highlights the case of Mali as a typical Sahelian country. It aims at helping inform the general public of the urgent need for continued support to research in developing countries to develop the rural areas and their agriculture.
Price: free of charge
Orders to: ISNAR, Publications Services, PO Box 93375, 2509 AJ The Hague, the Netherlands.

Organic Recycling in Asia and the Pacific. F.J. Dent, editor. RAPA Bulletin vol. 10. Regional Office for Asia and the Pacific of FAO, Bangkok, 1994, iv + 102 p. Paperback.

The ten sections of this issue organize the new items and development in organic recycling, reported by various sources over the last twelve months in a logical sequence, the topics covered being N-Biofertilizers, P-Biofertilizers, Compost and Industrial Wastes, Green Manures and Mulches, Biogas, Sewage and Night Soil and Integrated Farming together with information on recent publications and News from the Asian Bio and

Organic Fertilizer Network.
Orders to: Regional Soil Management and Fertilizer Use Officer, FAO/RAPA, Maliwan Mansion, Phra Atit Road, Bangkok 10200, Thailand.

Carbon, Nitrogen, and Sulfur Pollutants and their Determination in Air and Water. J. Greyson. Marcel Dekker, New York, Basel, 1990, xi + 338 p. ISBN 0-8247-8235-6. Hardbound.

This practical reference details procedures available for the monitoring and control of carbon, sulfur, and nitrogen pollutants - considering the analysis of these elements in diverse industrial processes, such as waste and water treatment, energy, transportation, pharmaceuticals, and mining.

Introducing the nonanalytical chemist to the complexity and problems of environmental sampling and measurement statistics, this monograph addresses the principles, strengths, and limitations of numerous analytical procedures ... highlights new methods, including fluorescence, chemiluminescence, and ion chromatography ... discusses the elementary chemistry of carbon, sulfur, and nitrogen ... examines potential applications of enzymes and immunochemicals .. considers the introduction of carbon, sulfur, and nitrogen into the biosphere through industrialization and energy use ... investigates entry routes of water contaminants.
Price: USD 165
Orders to: Marcel Dekker Inc., PO Box 5005, Monticello, NY 12701-5185, U.S.A, *or* Marcel Dekker, AG/IBS, Postfach 812, CH-4001 Basel, Switzerland.

Wheat/Potato/Peanut Health Management. American Phytopathological Society, APS Press, St. Paul.

Over de past few years three books have appeared in the Plant Health Management Series. Published have been books on wheat, potato and peanut, while others are planned, such as on corn. These books cover aspects of soil science (including site selection, land preparation, management of soil fertility), nematology, entomology, pathology and crop science.
Wheat Health Management. R.J. Cook and R.J. Veseth. 1991, 168 p. ISBN 0-89054-111-6. Paperback.
Price: USD 45.
Potato Health Management. R.C. Rowe, editor. 1993,193 p. ISBN 0-89054-144-2. Paperback
Price: USD 45.
Peanut Health Management. H.A. Melouk and F.M. Shokes, editors. 1995, 130 p. ISBN 0-89054-203-1. Paperback.
Price: USD 45.
Orders to: The American Phytopathological Society, 3340 Pilot Knob Road, St. Paul, MN 55121-2097 U.S.A.

Science under Scarcity. Principles and practice for agricultural research evaluation and priority setting. J.M. Alston, G.W. Norton and P.G. Pardey. Cornell University Press in cooperation with the International Service for National Agricultural Research, 1995, xxxiii + 448 p. ISBN 0-8014-2937-4. Hardback.

Resources for agricultural science are scarce across the world. Yet even as resources are shrinking, agricultural science has expanded its inquiry into many new areas -such as environmental preservation, food quality, and rural development- without forsaking its more traditional concerns. In a time of tight government budgets, research administrators are faced with the need to provide strong evidence that costs are justified by benefits. Science Under Scarcity is an invaluable guide to the theory and methods necessary for evaluating research in agriculture and for setting priorities for resource allocation. Without the assistance of formal economic analysis it is particularly difficult to assess the social value of new technologies, make informed judgements about the tradeoffs that are involved in allocation decisions, or to address the increasing demands for accountability of research. Addressing that knowledge gap, this book reviews, synthesizes, and extends such methods as economic surplus analysis, econometric techniques, mathematical programming procedures, and scoring models.
Price: USD 43,95.
Orders to: Cornell University Press, P.O.Box 250, Ithaca NY, 14851, U.S.A.

Ionen-Chromatographie. Zweite, erweiterte Auflage. J. Weisz. VCH Verlagsgesellschaft mbH, Weinheim. 1991, xiv + 468 S. ISBN 3-527-28698-5. Gebunden.

In der zweiten Auflage ist der Umfang dieses Buches trotz einiger Straffungen um fast die Hälfte angewachsen - Ausdruck der erzielten methodischen Fortschritte and vermehrter Anwendungen. Wiederum gelingt dem Autor die Aufhellung der physikalisch-chemische Hintergründe und die kritische Würdiging aller gängigen Verfahrensweisen. Im Mittelpunkt der Betrachtungen stehen die Wirkungsweisen von stationären Phasen und Eluentien. Das Buch wendet sich an alle, die Hilfe bei der Lösung ihrer Trennprobleme suchen.
Price: DM 174.
Orders to: VCH, Postfach 101161, D-69451 Weinheim, Bundesrepublik Deutschland.

Methods and Guidelines for Assessing Sustainable Use of Soil and Water Resources in the Tropics. R. Lal. Soil Management Support Services Technical Monograph no. 21, The Ohio State University, Printing Services, U.S.A., 1994, vii + 78 p. Paperback.

This monograph provides rationale and some methods for assessing the sustainable use of the land resources. It provides scientists and decision-makers in developing countries a quick reference to the subject. It is not intended to provide a recipe for every situation one can encounter, but broad guidelines for consideration. The extensive reference list gives the reader an information base to consult.
Price: USD 25, free copy for persons in developing countries.
Orders to: Department of Agronomy, The Ohio State University, 2021 Coffey Road, Columbus, Ohio 43210-1002, U.S.A., or Program Leader, Soil Management Support Services, P.O.Box 2890, Washington, D.C. 20013, U.S.A. (for free copies)

Soil Tillage for Crop Production and Protection of the Environment. Proceedings of the 13th International Conference of the International Soil Tillage Research Organization. H.E. Jensen, P. Schjonning, S.A. Mikkelsen and K.B. Madsen (editors). Danish Institute of Plant and Soil Science, Denmark, 1994, Volume I, xviii + 662 p. Volume II, xviii + 1342 p.

These volumes contain the papers presented at the 13th International Conference of ISTRO. The first volume has the following sections: I. Soil tillage and soil quality (31 papers); II. Losses of chemicals from soils (32 papers); III. Water management and crop production (11 papers); IV. Soil physical and chemical properties and processes (29 papers). In the second volume: Section V. Plant root development and functioning (8 papers); VI. Advances in soil tillage for crop production (63 papers); VII. Modelling and expert systems in soil tillage management (9 papers); VIII. Soil implement performance (22 papers). The nine invited review papers are published in Soil & Tillage Research, vol. 30, Nos. 2-4, 1994.
Price: DKK 600
Orders to: Danish Institute of Soil Science, Secretariat, P.O.Box 23, 8830 Tjele, Denmark.

The Cultural Dimension of Development. Indigenous knowledge systems. D.M. Warren, L.J. Slikkerveer and D. Brokensha. Intermediate Technology, London, 1995, xviii + 582 p. ISBN 1-85339-251-0. Paperback.

This book presents overwhelming evidence, from a range of disciplines, that local people do know a great deal about their environment, in which they have often lived for generations. This knowledge must be taken into account in the planning and implementation of development, if this is to be acceptable to the people, and effective. The book includes forty-six papers, from a wide variety of disciplines including anthropology, sociology, geography, agricultural sciences and others. There are twenty-seven case studies and six general conceptual papers. The interdisciplinary approach adopted by the editors will make this book a stimulating tool for all those studying indigenous knowledge systems, no matter which 'traditional' discipline they start from.
Price: GBP 16.95
Orders to: Intermediate Technology Publications, Unit 25, Longmead, Shaftesbury, Dorset SP7 8PL, UK.

Efficient Water Use. H. Garduño and F. Arreguín-Cortés, editors, UNESCO-ROSTLAC, 1994, xix + 379 p. ISBN 92-9089-340-0. Paperback.

This book contains the results of the International Seminar on Efficient Water use, held in Mexico City from 21 to 25 October 1991, organized by the Instituto Mexicano de Tecnología del Agua (IMTA), The Comisión Nacional der Agua (CNA) and the International Water Resources Association (IWRA) with the sponsorship of the International Hydrological Programme (IHP). The general conclusion of the Seminar was that efficient water use is moving out of the laboratory and into the field, and from the discussion stage into actual practice. For many countries, this is not merely another alternative but the only one available.

Uso Eficiente del Agua. H. Garduño y F. Arreguín-Cortés, editores, UNESCO-ORCYT, 1994, xix + 379 p. ISBN 92-9089-340-0. Paperback.

Esta obra es el resultado des Seminaria Internacional sobre Uso Eficiente del Agua realizado en la ciudad de México des 21 al 25 de octubre de 1991, bajo los auspicios des Instituto Mexicano de Technologíca del Agua (IMTA), la Comisíon Nacional del Agua (CNA) y el International Water Resources Association (IWRA) con el patrocinio del Programa Hidrológico Internacional (PHI). El mensaje de la mayoría de los autores va encaminado a mostrar qu en este momento el mundo está pasando del laboratorio al campo y del discurso a los hechos para usar mejor el agua, señalando que en muchos países el uso eficiente del agua no es una opción más sino la única.
Precio/Price: FF 290, USD 50
Orden/Orders to: UNESCO-ORCYT, Casilla de Correo 859, 11000 Montevideo, Uruguay

Livestock and Sustainable Nutrient Cycling in Mixed Farming Systems of sub-Saharan Africa. J.M. Powell, S. Fernández-Rivera, T.O. William,s and C. Renard, editors, International Livestock Centre for Africa (ILCA), Addis Ababa, Ethiopia, 1995, Volume I, vii + 50 p., Volume II vii + 560 p. ISBN 92-9053-294-7, Paperback.

These proceedings report on research to examine the role of livestock in nutrient cycling in sub-Saharan Africa. They indicate the strategies they have chosen to support farmers and policymakers in developing more sustainable food production systems. Volume I contains abstracts of all papers in English and French and summarises the major discussions, findings and recommendations. Volume II contains the full manuscripts of the plenary sessions: Setting the scene (3 papers), Interactions between animals and plants (5 papers), Interactions between animals and soils (7 papers), Interactions between plants and soils (7 papers), Nutrient cycling in mixed farming systems (8 papers), and Modelling nutrient cycles in plant/animal/soil systems (5 papers).
Price: USD 40
Orders to: Head of Publications, ILCA, P.O.Box 5689, Addis Ababa, Ethiopia.

Carbon Forms and Functions in Forest Soils. W.W. McFee and J.M. Kelly, editors, Soil Science Society of America, 1995, xix + 594 p. ISBN 0-89118-818-5. Hardback.

This book focuses on a single factor that in many ways describes, defines, and delineates the study of forest soils as a unique niche in the broader continuum of soil science. It is based on papers presented at the 8th North American Sorest Soils Conference in Gainsville, May 1993. Soil carbon affects plant relationships through its direct and indirect impacts on mineral solubility, exchange capacity, nutrient availability, moisture supply, aggregate formation, and soil erosion. Many changes in the approach to the management and preservation of forest resources have occurred since the previous conference. The most significant development has been the growing emphasis placed on understanding and manipulating forests as ecological units. Paralleling this move toward an ecological focus has been the renewed realization of the important and dynamic nature of the interaction between the physical and biological resources. The role of forest soils today highlights the need to continue to develop and refine our knowledge of the interactions of soils, plant and the environment.
Price: USD 70
Orders to: SSSA Headquarters Office; Attn: Book Order Department; 677 South Segoe Road; Madison, Wisconsin 53711-1086 USA.

Soils. A new global view. T.R. Paton, G.S. Humphreys and P.B. Mitchell. UCL Press Limited, London, 1995, ix + 213 p. ISBN 1-85728-465-8 (Paperback), 1-85728-464-X (Hardback).

This book challenges the way in which the characteristics and origin of soil materials are evaluated. It re-examines the dominant pedogenic processes and provides a model of soil genesis that is fundamentally different from those currently in use. The new approach places much greater emphasis on the determinative factors of lithological material and position in the landscape in dictating the pathways of pedogenesis.
Price: GBP 14.95 (Paperback), 45.00 (Hardback)
Orders to: UCL Press Limited, University College London, Gower Street London WC1E 6BT, U.K.

Environmental Soil Biology. 2nd edition. M. Wood. Blackie Academic and Professional, Glasgow, 1995, ix + 150 p. ISBN 0-7514-0343-1 (Hardback), 0-7514-0343-1 (Paperback).

This book provides an account of the subject for undergraduate and postgraduate students of environmental science and related subjects. The first part is an introduction to soils, its inhabitants, and their activities. The second part covers the influence of man on the natural cycles of soil. Topics such as acid rain and nitrogen fertilisers are considered alongside pesticides and genetically modified organism. The last chapter considers how, as we move towards the next millennium, we can apply the concept of sustainability to issues such as global climate change and farming systems.
Price: GBP 37 (Hardback), 16.99 (Paperback)
Orders to: Blackie Academic & Professional, Wester Cleddens Road, Bishopbriggs, Glasgow G64 2NZ, U.K.

No Runoff, No Soil Loss: soil and water conservation in hedgerow barrier systems. P. Kiepe. Doctoral Thesis, Wageningen Agricultural University, 1995, 156 p. ISSN 0926-9495. Paperback.

This thesis presents an analytical framework for calculating the impact of hedgerows and mulch on infiltration, runoff and soil loss. The framework was expanded with algorithms to calculate the impact of hedgerows of various densities, ranging from 1-4 rows. The framework was applied on a seasonal basis and the predictions were satisfactory. Extreme events can be explained when dynamic soil and plant conditions are incorporated. A dynamic simulation model called SHIELD has been developed that explains the experimental observations for runoff, soil loss and crop yields using daily time steps. Application of the model illustrates the importance of dynamic soil and plant conditions to the amount of soil being lost and shows that SHIELD can be used to compute the maximum desired distance between hedgerows with respect to tolerable soil loss.
Orders to: Department of Irrigation and Soil and Water Conservation, Wageningen Agricultural University, Nieuwe Kanaal 11, 6709 PA Wageningen, The Netherlands.

Potato Production in the Tropics. L.A. Manrique. Manrique International Agrotech, Honolulu. 309 p. Paperback.

Potato production in the tropics is afflicted by several constraints including diseases and pests, lack of available seed, and improper soil and crop management. Despite substantial progress in plant breeding and protection, overall tuber yield increases have been minimal at best. The inherent inability of the potato to grow and yield under tropical conditions remains as the most limiting factor for successful production. Given the limitations affecting the potato, there is a need to revisit past and current technologies to.

This book brings an analysis of all aspects of the production cycle. The intent is to explore potential avenues for developing strategies to sustain and improve the feasibility of potato production in the tropics. To improve feasibility, however, significant improvements must come not only from improved soil, water, and crop management practices but from placing the potato in cropping systems designed to increase overall productivity and to reduce the risk of crop failure.
Price: USD 60 (plus shipping charges)
Orders to: Manrique International Agrotech, P.O.Box 61145, Honolulu, HI 96839, U.S.A.

Plant-Environment Interactions. R.E. Wilkinson, editor. Marcel Dekker, New York, Basel, 1994, v + 599 p. ISBN 0-8247-8940-7. Hardbound.

Bridging the gap between generalized textbooks and highly specialized encyclopedias, this book presents a broad picture of overall plant responses to environmental factors based on an understanding of specific chemical reactions in particular organelles. Integrating the numerous variables that work in a variety of combinations to create reactions in whole organisms, this book offers individual chapters on environmental parameters that explore techniques and methodologies as well as the interpretations of results.
Price: USD 150
Orders to: Marcel Dekker, PO Box 5005, Monticello, NY 12701-5185, U.S.A., or Marcel Dekker, AG/IBS, Postfach 812, CH-4001 Basel, Switzerland.

Artificial Recharge of Ground Water, II. A.I. Johnson, R. David and G. Pyne. American society of Civil Engineers, New York, 1995, xxv + 913 p. ISBN 0-7844-0081-1. Paperback.

This book contains the proceedings of the second international symposium of artificial recharge of groundwater (1994), organized by the American Society of Civil Engineers (ASCE). These proceedings include papers discussing recharge by wells or spreading basins; with various qualities of potable water, surface water and reclaimed waste water; into consolidated and unconsolidated, confined and unconfined aquifers. They also discuss water quality changes occurring during recharge, soil-aquifer treatment processes, well clogging, modelling and recent innovative technical developments and applications. Special discussion issues included regulatory, hydraulic, environmental, economic and other considerations that affect development os successful recharge projects. The book has the following sections: 1. Overview (5 papers); 2. Applied Research - The high Plains Demonstration Program (7 papers); 3. Surface-Type Recharge (9 papers); 4. Well-Type Recharge (7 papers); 5. Aquifer Storage and Recovery (ASR) (6 papers); 6. Waste Water Recharge (9 papers); Storm Water Recharge (4 papers); 8. Salt Water Intrusion Control (3 papers); Water Quality Impacts(13 papers); 10. Modeling (9 papers); 11. Well Clogging (3

papers); 12. Recharge to Hard Rock Aquifers (6 papers); 13. Case histories (9 papers); 14. Field Trip Projects (3 papers).
Price: USD 73
Orders to: ASCE Publications, 345 East 47th Street, New York, NY 10017, U.S.A.

CH_4 and N_2O. Global Emissions and Controls from Rice Fields and Other Agricultural and Industrial Sources. K. Minami, A. Mosier and R. Sass (editors). Yokendo Publishers, Tokyo, 1994, x + 234 p. ISBN 4-8425-9414-4. Hardback.

This book is the result of the International Workshop on „CH_4 and N_2O Emission from Natural and Anthropogenic sources and their Reduction Research Plan" held in Japan in 1992. The participants reported about the analytical methods, field measurements, estimated emission values and the effect of many factors on emission, and methods to reduce CH_4 and N_2O from emission sources. The book has the following sections, Methane (10 papers); Nitrous Oxide (8 papers).
Price: JPY 5356
Orders to: Yokendo Publishers, Hongo 5-30-15, Bunkyo-ku, Tokyo 113-91, Japan.

Ecology and Biology of Soil Organisms. S.C. Bhandari and L.L. Somani (Editors). Agrotech Publishing Academy, Udaipur, 1994, 272 p. ISBN 81-85680-10-8. Hardbound.

This book aims to emphasise the role of soil organisms and their interaction with plants. It intends to give students of ecology an understanding of interactions of various organisms in the soil plant systems. It is an attempt to put together the research findings in concise manner on certain aspects of soil ecology with special reference to agriculture, like enumeration techniques, plant-microorganisms interactions, rhizosphere, microbe-fauna interactions, environment, microbes interactions, etc.
Orders to: Agrotech Publishing Academy, 1—G-24, Sector-5, Hiran Magri (Gayatri Nagar) Udaipur-313 001 (Rajasthan), India.

Full House. Reassessing the earth's population carrying capacity. L.R. Brown and H. Kane. Earthscan Publications Limited, London, 1995, 261 p. ISBN 1-85383-251-0. Paperback.

This book examines the causes of a new imbalance in the food/population equation, and suggest ways in which Malthusian checks can be countered. It is a call for an international strategy to restore global security, and a budget to implement it, with a massive redirection of the world's financial resources. On one side of the coin it advocate increased expenditure on family planning services, education and women's rights. On the other, it stresses the importance of reforestation and soil conservation schemes to halt the deterioration of the agricultural resource base.
Price: GBP 10.95
Orders to: Earthscan Publications Limited, 120 Pentonville Road, London N1 9JN, England.

Proceedings of the First International Conference on Pedo-Archaeology. February 16-20 1992. J.E. Foss, M.E. Timpson and M.W. Morris (editors), University of Tennessee, Agricultural Experiment Station, Knoxville, 1993, v + 210 p. Paperback.

The major objective of the conference was to encourage multidisciplinary effort of pedology, geology, and archaeology in the study of archaeological sites. Other objectives were: developing a plan for enhancing interactions between disciplines, reporting on new techniques for studying sites, and evaluating the applications of data gained by this multidisciplinary approach in archaeology. In this book the papers are listed under the broad headings of position papers, techniques in pedo-archaeology, and application of pedo-archaeology techniques. The book consists of the followings papers: Introduction to Florida (2 papers); Position Papers (5 papers); Techniques in Pedo-archaeology (8 papers); Application of Pedo-Archaeology Techniques (7 papers).
Price: USD 15
Orders to: Dr. John E. Foss, Dept. of Plant & Soil Science, P.O.Box 1071, Knoxville, TN 37901-1071, U.S.A.

Conserving Indigenous Knowledge: Integrating Two Systems of Innovation. The Rural Advancement Foundation International (RAFI), United Nations Development Programme, 1994, viii + 63 p.

This report discusses the following topics in detail: issues and trends in intellectual property systems; issues and trends in biodiversity; indigenous knowledge of biodiversity; and alternatives to intellectual property rights. It also includes an appendix of 100 examples of how the North has benefitted from the south's biodiversity.
Orders to: RAFI, Suite 504, 71 Bank Street, Ottawa, Ontario KIP 5N2, Canada or United Nations Development Programme, Reference Unit - DCI-490, One United Nations Plaza, New York, NY 10017, U.S.A.

Soil and Water Conservation. Challenges and Opportunities. 8th International Soil Conservation Conference, December 1994, New Delhi, Oxford & IBH Publishing Co., New Delhi, 1994, xxii + 470 p. Paperback.

This book contains the abstracts of the conference in New Delhi, India, December 4-8 1994, organised by the Indian Association of Soil & Water Conservationists. Theme 1. Land Degradation Status (19 papers); Theme 2. Land Degradation Assessment (13 papers); Theme 3. Modelling, Conservation and Productivity (20 papers); Theme 4. Factors Affecting Erosion (5 papers); Theme 5. Conservation Measures and Impact (41 papers); Theme 6. Residue Tillage Management (8 papers); Theme 7. Rehabilitation (9 papers); Theme 8. Watershed Management (16 papers); Theme 9. People's Participation (27 papers); Theme 10. Agroforestry and Conservation (15 papers); Theme 11. Biodiversity and Conservation (5 papers); Theme 12. Economic Evaluation and Policies (13 papers); Theme 13. Traditional Technology (6 papers).
Orders to: Oxford & IBH Publishing Co., 66 Janpath, New Delhi 110 001, India

La régénération de l'Espace Sylvo-Pastoral au Sahel. Une étude de l'effet de mesures de conservation des eaux et des sols au Burkina Faso. F.G. Hien. Thèse. Document sur la Gestion des Ressources Tropicales, 7. Université Agronomique de Wageningen, xiv + 223 p. ISSN 0926-9495. Paperback.

Ce rapport présente les résultats de recherches entreprises au Burkina Faso sur les méthodes de régénération des espaces sylvo-pastoraux. Il fait d'abord le point des méthodes de régénération existantes. Ensuite, sont discutées les conclusions d'une étude écologique quantitative conduite dans deux sites représentatifs de la zone d'étude écologique quantitative conduite dans deux sites représentatifs de la zone d'étude.Cette étude vise (i) à comprendre les processus de la régénération, (ii) à déterminer les conditions de leur durabilité et (iii) à mieux appréhender les raisons des succès et éches des techniques de régénération. Le bilan de l'eau et des régénération. Le bilan de l'eau et des éléments nutritifs (N,P et K) ainsi que le dynamique des végétations ont été ainsi étudiés dans différents types de sols et sous différentes techniques de régénération. Une conclusion essentielle de ces travaux et que les sols dégradés et encroûtés ne peuvent être régénérés sans une modification des termes du bilan hydrique.Lorsque l'infiltration est accrue, les processus biologiques qui en découlent peuvent conduire à transformer des sols apparemment stériles en des terres productives. Toutefois, l'accroissement de l'eau disponible entraîne le plus souvent une limitation de l'azote. L'infiltration profonde peut en revanche stimuler le développement d'une végétation ligneuse qui joue, en fin de compte, un rôle de stabilisation de processus global de régénération des espaces sylvo-pastoraux sahéliens.
Prix: NLG 20
Commandes à: Office for International Relations, P.O.Box 9101, 6700 HB Wageningen, The Netherlands.

Geologisches Jahrbuch. Reihe F, Heft 31. Methodendokumentation Bodenkunde. Auswertungsmethoden zur Beurteilung der Empfindlichkeit und Belastbarkeit von Böden. V. Hennings, editor. Bundesantstalt für Geowissenschaften und Rohstoffe und Geologische Landesämter in der Bundesrepublik Deutschland, Hannover, S. 242. ISSN 0341-6445. Paperback.

This book was prepared by a joint working group of the Geological Surveys of the German federal states and the Federal Institute for Geosciences and Natural Resources (BGR) set up to study various methods for evaluating basic pedological maps, to assess these methods, and to compile a documentation. The spectrum of methods is restricted to specific properties or functions of the soil and the vulnerability of the soil to specific hazards: potential susceptibility to compaction, retention capacity for heavy metals, vulnerability to erosion by water, groundwater recharge, nitrate retention capacity, agricultural yield potential, vulnerability to erosion by wind, vulnerability of forest soils to acidification. This book describes methods whose applicability is restricted to certain areas or to maps having a certain scale. Therefore, all of the methods must be checked and developed further according to the results of further research.
Orders to: Bundesanstalt für Geowissenschaften und Rohstoffe und den Geologische Landesämtern in der Bundesrepublik Deutschland, Alfred-Bentz-Haus, Postfach 51 01 53, D-30631 Hannover, Germany.

Sustainable Use of Natural Resources. A Conceptual Approach to Sustainable Management of Natural Resources in the Context of Development. Development and Environment Reports No. 14. H. Zweifel, editor. Group for Development and Environment of the University of Berne, 1995, 46 p. ISBN 3-906290-00-X. Paperback.

This report is intended to provide support for people working in development and environmental organisations who are responsible for implementing environmental measures. This report has been designed as a conceptual approach to stimulate public discussion of natural resource management. It is also available in German and French.
Price: CHF 12
Orders to: Group for Development and Environment, Institute of Geography, University of Berne, Hallerstrasse 12, CH-3012 Berne, Switzerland.

Pesticides in the Hydrologic System. R.J. Gilliom, editor-in-chief. Ann Arbor Press, Chelsea, 1995.

This is a four-volume series of stand-alone reference books which provide a definitive review and interpretation of the occurrence, causes, and significance of pesticides in water resource. Each volume corresponds to a major component of the hydrologic system.
Price: GBP 149.95
Orders to: Ann Arbor Press, Inc., 121 South Main Street, P.O.Box 310, Chelsea, MI 48118 U.S.A.

Professional Groundwater and Hazardous Waste Science Series. L.G. Everett, series editor, Ann Arbor Press, Chelsea, 1995.

The objectives for the Series are to concentrate on innovative and practical books related the characterization, remediation, and containment barriers. This series will focus not only on practical approaches in America, but will also include successful international applications of hydrogeologic characterization, remediation, and containment.
Inquiries: Ann Arbor Press, Inc., P.O.Box 310, Chelsea, MI 48118, U.S.A.

Biodiversité et Environnement. Rapport no 33, Académie des Sciences. TEC & DOC-Lavoisier, 96 p. 1995.

Ce rapport a pour premier objectif d'expliciter la notion de biodiversité. En second lieu, il analyse les modalités du transfert des connaissances vers ceux qui doivent décider agir, gérer en produire. L'ensemble conduit à proposer une politique nationale de la biodiversité avec cinq priorités: créer un réseau d'observatoires chargés des inventaires biologiques et de la surveillance écologique du territoire; élaborer et coordonner un programme national de recherche; développer une culture de la biodiversité fondée sur la connaissance du vivant et de ses relations avec l'environnement; améliorer la gestion des ressources biologiques; promouvoir la contribution de la France à l'effort international au moment où le programme mondial „Environnement et climat" comporte pour la première fois une composante „biodiversité".
Prix: FFR 150
Commandes à: Lavoisier, 14, rue de Provigny, F-94236 Cachan Cedex, France.

Sago Palm. Published by the Japanese Society of Sago Palm Studies, 1993. (part in English, part in Japanese). Paperback.

The objectives of this journal is to extend mutual communication among the interested personnel and parties, by exchanging information on sago palm and its socio-economic and cultural signification.

Information: Secretariat of the Japanese Society of Sago Palm Studies, Tokyo University of Agriculture and Technology, Fuchu, Tokyo 183, Japan.

Agritrop. Abstracts Journal for Literature on Agriculture and Rural Development in the Tropics and Subtropics. Abstracts Journal published quarterly by CIRAD, Montpellier.

This abstracts journal is published in cooperation with the documentation centres of French and foreign research and training institutes, specializing in agriculture and rural development in the tropics and the Mediterranean region. It indexes publications by francophone scientists. Special emphasis is laid on grey literature. The subject areas include: agricultural economics and development; farming systems; crop production and protection; forestry; livestock production and health; fisheries and aquaculture; agricultural engineering; natural resource management; and postharvest storage and food processing. Each entry contains an abstract. Author, subject, and geographic indexes are also included.

Orders to: see below.

Sésame. Published by AUPELF-UREF.

This is the third revised and enhanced edition of this CD-ROM for literature on agriculture and rural development in the tropics and subtropics. It contains more than 148 000 bibliographic entries. Data can be accessed in French and English.

Orders to: CIRAD-CIDARC, UCIST, B.P. 5053, 34032 Montpellier Cedex 1, France.

Global Change Biology. Published bimonthly by Blackwell Science, Oxford, 1995. ISSN 1354-1013.

This journal aims to publish research on biological aspects of current environmental change affecting all or large parts of the globe. Examples include: predicted climate change; rising tropospheric CO_2 and O_3 concentrations; and the loss of biodiversity. The journal will provide a focus for those concerned with the impacts of global change on living organisms and the feedback of biological systems on the direction and rate of change in the physico-chemical character of the earth system.

Subscription Price: GBP 30 (Europe), GBP 35 (Overseas), USD 53 (USA and Canada)

Orders to: Anna Rivers, Blackwell Science, Osney Mead, Oxford OX2 0BR, U.K.

SPUSH. A Newsletter on Sustainable Productive Use of Salt-affected Habitats. FAO-UNEP-ISSS/ Appears twice a year.

The global importance of soil and water salinization and the extension of salt affected territories makes it imperative from the points of view of both environmental considerations and production requirements to develop a better international collaboration to successfully respond to this threat. SPUSH is a landmark on the way to coordinated activities, covering both studies and actual utilization of saline land. It will certainly lead to better cooperation and exchange of experience. The newsletter is dedicated to the exchange and dissemination of information, improvement of the coordination of scientific knowledge and promotion of appropriate management practices of slat affected soils in various regions. The editors hope that the Newsletter will receive an echo from many countries and regions confronted with the problems of soil salinity and sodicity. The first issue, dated June 1995, contains contributions from ongoing activities in 11 countries.

For further information please contact: Dr. Marianne Rédly, Chair Subcommission A,ISSS, c/o Research Institute for Soil Science and Agricultural Chemistry (RISSAC) of the Hungarian Academy of Sciences, Budapest, Herman Ottó út 15, Hungary, H-1022.

Environment and History. The White Horse Press, Cambridge. R.H. Grove, editor. ISSN 0967-3407

As an understanding of the history of human interactions with all parts of the cultivated and non-cultivated surface of the earth, and with living organisms, is increasingly seen to be essential to more conventional economic and cultural projects in history, history of science, anthropology, geography and sociology; 'environmental' history can also be of considerable assistance in efforts to comprehend the traumatic environmental difficulties facing us to-day this journal aims to bring scholars in the humanities and biological sciences closer together.

Subscription Price: GBP 60, USD 100, DEM 150

Order to: The White Horse Press, 1 Strond, Isle of Harris, PA83 3UD, U.K.

Environmental and Ecological Statistics. Quarterly by Chapman & Hall, London. G.P. Patil, editor-in-chief. ISSN 1352-8505.

This quarterly journal aims to publish on the practical applications of statistics and related qualitative methods to environmental science. The emphasis is on applied mathematical statistics, statistical methodology and data interpretation. It covers all aspects of the collection, analysis and interpretation of environmental data for research, policy and regulation and maintains a cross-disciplinary stance, within the context of contemporary environmental issues and the associated statistical tools, concepts and methods.

Subscription price: Institutional rate: GBP 90 (Europe), USD 139 (USA and Canada), GBP 99 (rest of the world);

Personal rate: GBP 33 (Europe), USD 55 (USA and Canada), USD 33 (rest of the world)

Orders to: Dean Smith, Journals Promotion Department, Chapman & Hall, One Penn Plaza, 41st Floor, New York, NY 10119, USA, or Keith Silver, Journals Promotion Department, Chapman & Hall, 206 Boundary Row, London SE1 8HN, UK.

Journal of Vegetable Crop Production. Published by Food Products Press, Binghamton, U.S.A. ISSN 1049-6467.

This journal provides practical information toward the applied sciences of many aspects of vegetable production, in view of the needs, problems and opportunities of international markets.

Subscription price: Individual USD 36, Institution USD 60, Library USD 75

Orders to: The Haworth Press Inc., Alice Street, Binghamton, NY 13904-1580, U.S.A.

Aquatic Geochemistry. J.W. Morse, editor-in-chief. Published by Kluwer Academic Publisher Group, Dordrecht, Boston. ISSN 1380-6165.

This journal will provide papers about studies broadly related to the geochemistry of natural waters and their interactions with rock and minerals under relatively near-Earth-surface conditions and also papers presenting observations of natural systems that stress major processes.

Subscription price: Institutional rate NLG 330, Individual rate NLG 176 (1995.

Orders to: Kluwer Academic Publishers Group, Order Dept. P.O.Box 322, 3300 AH Dordrecht, The Netherlands or Kluwer Academic Publishers Group, Order Dept., P.O.Box 358, Accord Station, Hingham, MA 02018-0358, U.S.A.

Membership Application Form

Fiche de Demande d'Affiliation

ISSS-AISS-IBG **Aufnahmeantrag**

○ REGISTRATION FOR MEMBERSHIP/DEMANDE D'AFFILIATION/AUFNAHMEANTRAG

○ CHANGE OR CORRECTION OF ADDRESS/CHANGEMENT OU CORRECTION D'ADRESSE/ANSCHRIFTENÄNDERUNG

○ STATEMENT ON SPECIAL INTEREST/DECLARATION D'INTERETS SPECIAUX/ ANZEIGE VON SPEZIALINTERESSEN

○ APPLICATION FOR LIFE MEMBERSHIP/DEMANDE D'AFFILIATION POUR LA VIE/ANTRAG AUF MITGLIEDSCHAFT AUF LEBENSZEIT

- Please return this form, completed at both sides, to the Treasurer of ISSS: Peter U.Luescher, WSL, Zuercherstr.111, CH-8903 Birmensdorf/Switzerland
- Veuillez bien renvoyer ce formulaire, complété des deux côtés, au Trésorier de l'AISS:Peter U.Luescher, WSL, Zuercherstr.111, CH-8903 Birmensdorf/Suisse
- Bitte senden Sie dieses Formular, ausgefüllt auf beiden Seiten, an den Schatzmeister der IBG: Peter U.Luescher, WSL, Zuercherstr.111, CH-8903 Birmensdorf/Schweiz

Membership number (if applicable)
Numéro d'affiliation (si applicable)
Mitgliedsnummer (wenn anwendbar)

* Surname (Apellido/Sobrenome)
* Nom de famille.....
* Familienname

First name(s) (Nombre/Nome) or initials, and title(s)
Prénom(s) ou initiales, et titre(s).....
Vorname(n) oder Initialen und Titel

Address (Institution & Dept., Street and no. P.O.Box, Town & Zipcode, Country)
Adresse (Institution et Département, Rue et no., Boîte Postale, Ville et Code Postal, Pays)
Anschrift (Institut & Abteilung, Strasse & No., Postfach, Postleitzahl, Stadt, Land)

.....

.....

.....

.....

.....

Phone/Tel.:..... Fax:.....

Date
Datum..... Signature
Unterschrift.....

---

* For composite names, please indicate first the part of the name to be used for listing it in alphabetical order
* Pour les noms composés, prière de marquer en premier lieu l'élément du nom à utiliser dans une liste alphabétique
* Bei zusammengesetzten Namen wird gebeten, zuerst den Teil des Namens anzugeben, der in einer alphabetischen Folge erscheinen soll

please turn over!/voir au verso!/bitte wenden!

Specially interested in the activities of/intérêt particulier pour les activités/besonders an folgenden Bereichen interessiert:

(C) Commissions/Commissions/Kommissionen

- ○ I Soil Physics/Physique du Sol/Bodenphysik
- ○ II Soil Chemistry/Chimie du Sol/Bodenchemie
- ○ III Soil Biology/Biologie du Sol/Bodenbiologie
- ○ IV Soil Fertility and Plant Nutrition/Fertilité du Sol et Nutrition des Plantes/Bodenfruchtbarkeit und Pflanzenernährung
- ○ V Soil Genesis, Classification and Cartography/Genèse du Sol, Classification et Cartographie/Bodengenetik, Klassifikation und Kartographie
- ○ VI Soil Technology/Technologie du Sol/Bodentechnologie
- ○ VII Soil Mineralogy/Minéralogie du Sol/Bodenmineralogie
- ○ VIII Soils and the Environment/Sols et l'Environnement/Boden und Umwelt

Subcommissions/Sous-commissions/Subkommissionen

- ○ A Salt affected soils/Sols salins/Salzböden
- ○ B Soil Micromorphology/Micromorphologie du Sol/Bodenmikromorphologie
- ○ C Soil Conservation and Environment/Conservation du Sol et Environnement/Bodenerhaltung und Umwelt
- ○ D Soil Zoology/Zoologie du Sol/Bodenzoologie (with/avec/mit UBS)
- ○ E Forest Soils/Sols forestiers/Waldböden
- ○ F Land Evaluation/Evaluation du Terrain/Landbewertung
- ○ G Soil Remediation/Restitution des sols/Bodensanierung

Preferred language/Langue préférée/Gewünschte Sprache

- ○ English
- ○ Français
- ○ Deutsch
- ○ Espanol

Payment/Cotisation/Jahresbeitrag

Payment of the yearly due of US$ 12 or equivalent will be made:
La cotisation annuelle de 12 dollars E.U. ou leur équivalent sera versée:
Der Jahresbeitrag von US$ 12 oder Gegenwert wird bezahlt:

- ○ through the national society of/par l'intermédiaire de l'association nationale de/durch die nationale Gesellschaft von (country, pays, Land)

  .....

- ○ by cheque (personnel cheque = 17 US$)
  par chèque (chèque personnel = 17 dollars E.U.)
  mit Scheck (Privatscheck = 17 US $)
- ○ by international money order/par mandat international/durch Banküberweisung
- ○ as Unesco coupons/sous forme de bons de l'Unesco/mit Unesco-Kupons
- ○ life membership/affiliation pour la vie/Mitgliedschaft auf Lebenszeit (US$ 300 or equivalent, after four years of regular membership/dollars E.U. 300 ou leur équivalent, après quatre ans d'affiliation régulière/US$ 300 oder Gegenwert, nach 4 Jahren Normalmitgliedschaft)

Account/Compte/Konto:
Union Bank of Switzerland (UBS), CH-8903 Birmensdorf, ISSS, 817338.61T

ISSS-AISS-IBG

MEMBERSHIP LIST (1994)
of the International Society of Soil Science

LISTE DE MEMBRES (1994)
de l'Association Internationale de la Science du Sol

MITGLIEDERVERZEICHNIS (1994)
der Internationalen Bodenkundlichen Gesellschaft

Number of pages: approx. 150, size DIN A4
Price: 30 US$, including surface mail (airmail not possible)
To be obtained as of February 1995

I order ..... membership list(s) at a price of US$ 30.— each, and include a check/money order on the amount of ..... US$ for payment (dispatch of list only upon receipt of payment).
Please send the membership list to:

Name: .....

Address: .....

.....

.....

.....
signature

Please return this form to:

Dr. P. Luescher
Treasurer, ISSS
WSL, Zuercherstr. 111
8903 Birmensdorf

ISSS-AISS-IBG

CHANGE OF ADDRESS

If your address changes, please let us know in time, so that you will receive the ISSS Bulletin without delay.

In the case of a change of address, please fill in this important information:

Membership number: .....

Country: .....

Name: .....

New address: .....

.....

.....

.....

Tel./Fax.: .....

E-mail: .....

Please return this form to:

Dr. P. Luescher
Treasurer, ISSS
WSL, Zuercherstr. 111
8903 Birmensdorf
SWITZERLAND

Subcommissions/Sous-Commissions/Subkommissionen - Chairpersons/Présidents/Vorsitzende:

A. Salt Affected Soils/Sols Salins/Salzböden
Dr. M. Rédly, Research Inst. for Soil Science & Agric. Chem., Hungarian Academy of Sciences, Herman O. ut. 15, 1022 Budapest, Hungary

B. Soil Micromorphology/Micromorphologie du Sol/Bodenmikromorphologie
Dr. C.J. Chartres, CSIRO Div. of Soils, P.O. Box 639, Canberra City, ACT 2601, Australia

C. Soil and Water Conservation/Conservation des Sols et des Eaux/Boden- und Wasserschutz
Dr. Ch. Valentin, ORSTOM, B.P. 11416, Niamey, Niger

D. Soil Zoology/Zoologie du Sol/Bodenzoologie (with/avec/mit IUBS)
Prof.Dr. D. Parkinson, Dept. Of Biological Sciences, University of Calgary, 2500 University Drive N.W., Calgary, Alberta T2N 1N4, Canada;

E. Forest Soils/Sols forestiers/Waldböden
Dr. P.K. Khanna, CSIRO, Div. of Forest Research, P.O.Box 4008, Queen Victoria Terrace, Canberra, ACT 2600, Australia

F. Land Evaluation/Evaluation du Terrain/Landbewertung
Prof.Dr. K.J. Beek, ITC, P.O Box 6, 7500 AA Enschede, The Netherlands

G. Soil Remediation/Restitution des sols/Bodensanierung
Prof.Dr. D.C. Adriano, Savannah River Ecology Lab., Savannah River Site Bldg. 737A, Aiken, S.C., USA

Working Groups/Groupes de Travail/Arbeitsgruppen - Chairpersons/ Présidents/Vorsitzende:

AS Acid Sulphate Soils/Sols Sulphatés Acides/Saure Sulfatböden
Dr. S. Sadio, ISRA/ORSTOM, B.P. 1386, Dakar, Senegal

CR Cryosols/Cryosols/Frostböden
Dr. D.A. Gilichinsky, Inst. of Soil Science & Photosynthesis, Pushchino, Moscow District 142292, Russia

DE Soil Resources of Desert Ecosystems/Ressources de sol dans des ecosystèmes de désert/Böden in Wüstenökosystemen
Dr. A. Sourji, Rue de la ville 2, 5660 Couvin, Belgium

DM World Soils and Terrain Digital Data Base/Carte Internationale Numérique des Sols et des Terrains/Digitalisierte Internationale Boden- und Landkarte (SOTER)
Prof.Dr. M.F. Baumgardner, Dept. of Agronomy, Purdue University, West Lafayette IN 47907, USA

FA Soil Organic Fertilizers and Amendments/Produits organiques d'engrais et d'amendement du sol/ Organische Dünger und Bodenverbesserungsmittel
Prof.Dr. P. Sequi, Istituto Sperimentale per la Nutrizione delle Piante Via della Navicella 2-4, 00184 Roma, Italy

LI Land Evaluation Information Systems/Informatique de l'Evaluation des Terres/Informationssysteme zur Landbewertung
Dr. J. Dumanski, Land Resources Research Institute, Agric. Canada, Ottawa, Ontario, Canada K1A 0C6

MO Interactions of Soil Minerals with Organic Components and Microorganisms/Interactions entre les Minéraux du Sol, les Composées Organiques et les Microbes/Wechselwirkungen zwischen Bodenmineralen, organischen Substanzen und Mikroorganismen
Prof. Dr P.M. Huang, Univ. of Saskatchewan, Dept. of Soil Science, Saskatoon, Sask., Canada S7N 0W0

MV Soil and Moisture Variability in Time and Space/Variabilité du Sol et de l'Humidité dans le Temps et l'Espace/ Boden- und Feuchtigkeitsvariabilität in Raum und Zeit
Prof Dr. R.J. Wagenet, Dept. of SCAS, Bradfield Hall, Cornell University Ithaca, NY 14853-1901, USA

PM Pedometrics/Pedométrique/Pedometrik
Prof.Dr. A.B. McBratney, Dept. of Agric. Chem.&Soil Science, A03 Ross St. University of Sidney, NSW 2006, Australia

PP Paleopedology/Paléopédologie/Paläopedologie
Prof.Dr. J.A. Catt, Rothamsted Exp. Station, Soil Science Department, Harpenden, Herts, AL5 2JQ, United Kingdom

PS Paddy Soils Fertility/Fertilité des Sols Rizicoles Irrigués/Fruchtbarkeit von Reisböden
Prof.Dr. Tasnee Attanandana, Dept. of Soil Science, Faculty of Agric., Kasetsart University, Bangkok, 10903, Thailand

PT Pedotechnique/Pédotechnique/Pedotechnik
Dr. J. Koolen, Dept. of Soil Tillage, Wageningen Agric. Univ. Diedenweg 20, 6703 GW Wageningen, The Netherlands

RB World Reference Base for Soil Resources/Base de référence mondiale pour les ressources de sol/weltweite Referenzbasis fuer Bodenressourcen
Prof.Dr. J. Deckers, Wildenhoge 13, 3020 Winksele, Belgium

RS Remote Sensing for Soil Survey/Pédologie et Télédétection/Fernerkundung für Bodenkartographie
Dr. M. Mulders, Dept. of Soil Science & Geology, Wageningen Agric. University, P.O. Box 37, 6700 AA Wageningen, The Netherlands

RZ Rhizosphere/Rhizosphère/Rhizosphäre
Prof.Dr. P.J. Gregory, Dept. of Soil Science, Univ. of Reading, Whiteknights P.O.Box 233, Reading, RG6 2DW, U.K.

SG Soils and Geomedicine/Sols et Géomédecine/Böden und Geomedizin
Prof. Dr. J. Låg, Dept. of Soil Science - AUN, P.O.Box 28, 1432 Ås-NLH, Norway

SP Soil and Groundwater Pollution/Pollution du Sol et des Eaux
Souterraines/Boden- und Grundwasserverschmutzung Prof. Dr. P.J. Wieringa, Univ. of Arizona, Soil & Water Science, Tucson AZ 85721, USA

US Urban and Periurban Soils/Sols urbains et périurbains/Städtische Böden
Dr. J. Celecia, Division of Ecological Sciences, UNESCO, 75700 Paris, France

Standing Committees/Comités Permanents/Ständige Komitees - Chairmen/Présidents/Vorsitzende:

CSS Committee on Statute and Structure/Comité sur Statuts et Structures/Komitee für Statuten und Struktur
Prof Dr. P.B. Tinker, GCTE Associate Project Office, Department of Plant Sciences, University of Oxford, South Parks Road, Oxford OX1 3RB, UK

CIP Committee on International Programmes/Comité sur les Programmes Internationaux/ Komitee für Internationale Programme
Dr. J. Kimble SCS/NSSC, Federal Bldg. Room 152, 100 Centennial Mall North Lincoln, NE 68508-3866, USA

CST Committee on Standardization/Comité sur la Standardisation/Standardisierungskomitee
Dr. S. Nortcliff, Dept. of Soil Science, Univ. of Reading, Whiteknights P.O.Box 233, Reading RG6 2DW, U.K.

CBF Committee on Budget and Finances/Comité sur Budget et Finances/Budget- und Finanzkomitee
Prof Dr. W.R. Gardner, USA, College of Natural Resources, Univ.of California, Berkeley, Calif. 94720, USA.

CES Committee on Education in Soil Science/Comité pour l'Enseignement de la Pédologie/ Komitee für Bodenkundeausbildung
Prof. Dr. M. Dosso, CNEARC, 1101 Av. Agropolis, B.P. 5098 Montpellier Cédex, France

CHP Committee on the History, Philosophy and Sociology of Soil Science/Comité sur l'Histoire, Philosophie et Sociologie de la Science du Sol/Komitee für Geschichte, Philosophie und Soziologie der Bodenkunde
Prof. Dr. D.H. Yaalon, Institute of Earth Sciences, Hebrew University, Givat Ram Campus, Jerusalem 91904, Israel

Cooperating Journals/Journaux Coopérants/Kooperierende Zeitschriften
ARID SOIL RESEARCH AND REHABILITATION; BIOLOGY & FERTILITY OF SOILS; CATENA; GEODERMA; SOIL BIOLOGY & BIOCHEMISTRY; SOIL TECHNOLOGY;

ISSS MEMBERSHIP

Membership of the International Society of Soil Science is open to all persons engaged in the study and the application of soil science. Membership application can be addressed to the National Societies or directly to the Treasurer. For individual memberships, the yearly subscription, due each January, is 12 US dollars, or equivalent in any other convertible currency. Individual payments can be made by cheque (personal cheques only with additional payment of 5 US$) or by international money order. UNESCO coupons are also accepted. In order to reduce bank charges it is recommended that subscriptions be remitted, whenever possible, through the National Societies (for their addresses see Membership List 1991). Non-membership subscriptions to the Bulletin, by library services, institutes, etc., are US$ 50.- yearly.

ADHÉSION A L'AISS

Toute personne engagée dans l'étude et l'application de la science du sol peut adhérer à l'Association Internationale de la Science du Sol. Les demandes d'inscription peuvent être faites par l'intermédiaire des associations nationales ou adressées directement au Trésorier. La cotisation individuelle, due au mois de janvier, est de 12 dollars E.U. par an ou son équivalent dans une autre monnaie convertible. Les versements individuels peuvent être faits par chèque (chèque personnel seulement avec payement additionnel de 5 dollars E.U.) ou mandat international. Les coupons UNESCO peuvent également être utilisés. En vue de réduire les frais bancaires, il est demandé, dans la mesure du possible, de faire parvenir les cotisations par l'intermédiaire des associations nationales (voir leurs adresses *dans la Liste de Membres 1991). Les abonnements au Bulletin sans adhésion, pour les institutions*, services de bibliothèques, etc., sont de 50 dollars E.U.par an.

IBG-MITGLIEDSCHAFT

Die Internationale Bodenkundliche Gesellschaft heisst Personen, die auf dem Gebiet der Forschung und Anwendung der Bodenkunde arbeiten, als Mitglieder willkommen. Aufnahmeanträge können direkt an den Schatzmeister geschickt oder über die nationalen bodenkundlichen Gesellschaften an diesen geleitet werden. Der Einzelmitgliedsbeitrag, der jeweils im Januar zu entrichten ist, beträgt jährlich 12 US-Dollar oder den Gegenwert in einer konvertierbaren Währung. Einzelzahlungen können durch Scheck (Privatscheck nur bei zusätzlicher Zahlung von 5 US$) oder internationale Banküberweisung erfolgen. UNESCO-Kupons werden ebenfalls akzeptiert. Um die Bankkosten niedrig zu halten, sollten Beiträge wenn möglich durch die nationalen Gesellschaften gezahlt werden (Anschriften siehe Mitgliederverzeichnis 1991). Abonnements der Mitteilungen ohne Mitgliedschaft, für Institute, Bibliotheken u.s.w., betragen US$ 50.- jährlich.

SOCIOS DE LA SICS

Todas las personas involucradas en el estudio y la aplicación de la ciencia del suelo pueden ser miembro de la Sociedad Internacional de la Ciencia del Suelo. Las solicitudes de inscripción pueden ser enviadas a través de las sociedades nacionales o directamente al tesorero. Para miembros individuales la cuota anual, a ser pagada durante el mes de Enero, es de 12 dolares EUA o su equivalente en cualquier moneda cambiable. Los pagos individuales pueden ser realizados por medio de un cheque (cheque personal solo contra pagamento adicional de 5 dolares EUA) o un orden de pago internacional. También los cupones de la UNESCO pueden ser utilizados. Con el objeto de reducir los cargos bancarios se recomienda efectuar los pagos en lo posible a través de las sociedades nacionales (para las direcciones ver Lista de Socios 1991). Suscripciones al Boletín, sin ser miembro, de parte de servicios de bibliotecas, institutos etc. son de 50 dolares EUA por año.

Account/Compt/Konto/Cuenta: Union Bank of Switzerland (UBS),
CH-8903 Birmensdorf, ISSS, 817338.61 T
Treasurer/Trésorier/Schatzmeister/Tesorero: Peter U. Luescher, WSL, Zuercherstr. 111,
CH-8903 Birmensdorf/Switzerland