

N2010



International
Nitrogen Initiative



5th International Nitrogen Conference

““Reactive Nitrogen Management for Sustainable
Development – Science, Technology and Policy”

3 – 7 December 2010

PROGRAMME

WELCOME MESSAGE



Welcome to the N2010 International Nitrogen Conference. This is a unique event, despite being the 5th in a triennial international series. It brings together national and international researchers and policy makers from academia and industry, as well as intergovernmental and non-governmental organisations. This rich and diverse participation was consciously planned to enable interdisciplinary dialogue, in keeping with the professional alliances developed over the last decade by the International Nitrogen Initiative (INI) at the global level and the Indian Nitrogen Group (ING), a constituent of the Society for Conservation of Nature (SCON) at the national level.

The Conference is being hosted first time in India, a country in transition from developing to a developed country. India has huge stakes in achieving food and energy security, in which nitrogen input has played and will continue to play a vital role in the coming years and decades, inspite of the adverse impacts in some regions because of too much or too little nitrogen use. Thus, the main theme of the conference “**Reactive Nitrogen Management for Sustainable Development – Science, Technology and Policy**” is very relevant to comprehensively address the developments in the management of reactive nitrogen, including recent efforts and innovations in science and engineering and policy initiatives for managing the nitrogen cycle at the local, regional and global levels. More importantly, we hope this conference fosters inclusive partnerships among all the stakeholders from developed and developing nations, emerging economies and areas of too much and too little N use.

During the five days of deliberations, there will be five Keynote and ten Plenary lectures by eminent personalities from various fields and over 155 oral presentation spread over 21 Technical and 6 Special Sessions. In addition, there will be three Poster Sessions with adequate time for professional interactions. There will also be a Special open Session by the UNEP Global Partnership on Nutrient Management (GPNM) with Panel discussions on ‘Address the Nutrient Challenges – What we know and what we need to do’. I hope they will provide you with a rich scientific and professional experience.

On the social side, the Conference Banquet on the inaugural evening will elevate your spirits and a Cultural Event on the following evening will give you glimpses of various facets of India and its communities.

I welcome you all to N2010 and wish you the very best throughout this conference and beyond.

Manbir S. Sachdev

Conference Coordinator-N2010

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KEY-NOTE TALKS SESSION -1

Day & Date : Friday. 03 December, 2010

Time: 11:30 – 13:00 Convention Hall

CHAIRMAN :

Co-Chairman:

Time : 11:30

Theme : **FOOD SECURITY**

Key-note Speaker : Prof. Fu-Suo Zhang, CHINA

**INCREASE CROP PRODUCTIVITY AND NITROGEN USE EFFICIENCY
SIMULTANEOUSLY TO ENSURE FOOD SECURITY AND
ENVIRONMENTAL QUALITY**

College of Resources and Environmental Sciences, China Agricultural University,
China, zhangfs@cau.edu.cn ; Website: <http://www.cau.edu.cn/zihuan/ms.php?ID=54>

Time : 12:15

Theme : **ENERGY SECURITY & INDUSTRY**

Key-note Speaker : Prof. Robert Warren (Bob) Howarth, USA

BIOFUEL PRODUCTION AND THE NITROGEN CYCLE

*Department of Ecology & Evolutionary Biology, Cornell University, Ithaca, NY 14853
USA, Howarth@cornell.edu ; <http://www.eeb.cornell.edu/howarth>*

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KEY-NOTE TALKS SESSION -2

Day & Date : Friday. 03 December, 2010

Time: 14:00 – 15:30 Convention Hall

CHAIRMAN :

Co-Chairman:

Time : 14:00

Theme : ECOSYSTEM SERVICES & BIODIVERSITY

Key-note Speaker : Prof. Robert John (Bob) Scholes, SOUTH AFRICA

NITROGEN AND BIODIVERSITY

CSIR, NRE, Meiring Naude, Brummeria, South Africa, bscholes@csir.co.za

Time : 14:45

Theme : CLIMATE CHANGE

Key-note Speaker : Prof. Katsu Minami, JAPAN

**EFFECT OF NITROUS OXIDE ON ATMOSPHERIC ENVIRONMENTAL
CHANGES AND STRATEGIES FOR REDUCING NITROUS OXIDE
EMISSIONS FROM FERTILIZED SOILS**

**Vice President, Kitasato University, Kitasato 1-15-1, Sagamihara 252-0373, Japan,
kminami@kitasato-u.ac.jp**

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KEY-NOTE TALKS SESSION -3

Day & Date : Friday. 03 December, 2010

Time: 16:00 – 16:45

Convention Hall

CHAIRMAN : Dr. Cheryl Ann Palm, INI - Chair

Co-Chairman: Prof. Y.P. Abrol, President - ING

Time : 16:00

Theme : INTEGRATION

Key-note Speaker : Prof. Sybil P. Seitzinger, SWEDEN

NITROGEN AND SUSTAINABILITY: EXPLORING LINKAGES

International Geosphere-Biosphere Programme, Stockholm, Sweden,
Sybil.Seitzinger@IGBP.kva.se

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PLENARY TALKS SESSION -1

Day & Date : Saturday. 04 December, 2010

Time: 09:00 – 11:00 Convention Hall

CHAIRMAN :

Co-Chairman:

09:00 Plenary Speaker-1 : Dr. J.K. Ladha, INDIA

MANAGING N TO IMPROVE FOOD SECURITY AND THE ENVIRONMENT

International Rice Research Institute-India, New Delhi, J.K.Ladha@CGIAR.ORG

09:30 Plenary Speaker-2 : Prof. Roland Bobbink, THE NETHERLANDS

IMPACTS OF ATMOSPHERIC NITROGEN DEPOSITION ON SEMI-NATURAL ECOSYSTEMS: A SYNTHESIS.

*B-WARE Research Centre, Radboud University, P.O. Box 6558, 6503 GB Nijmegen, The Netherlands
(r.bobbink@b-ware.eu).*

10:00 Plenary Speaker-3 : Dr. S.K. Gupta, INDIA

PATHOPHYSIOLOGY OF NITRATE TOXICITY IN HUMAN AND ITS MITIGATION MEASURES

A 31-B, Anita Colony, Bajaj Nagar, Jaipur 302 015, India, krass@sancharnet.in

10:30 Plenary Speaker-4 : Dr. K.K. Gandhi, INDIA

NITROGEN AND FOSSIL FUEL CONSUMPTION IN TRANSPORT SECTOR: INDUSTRY PERSPECTIVE

Executive Director (Technical), Society of Indian Automobile Manufacturers, New Delhi, India,
kkgandhi@siam.in

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PLENARY TALKS SESSION -2

Day & Date : Sunday. 05 December, 2010

Time: 09:00 – 11:00 Convention Hall

CHAIRMAN : Dr. Prem Warrior, Executive Director, Bill & Melinda Gate Foundation

Co-Chairman:

09:00 Plenary Speaker-5 : Dr. Nancy Karanja, KENYA

**CONTRIBUTION OF BIOLOGICAL NITROGEN FIXATION TO FOOD SECURITY
IN AFRICAN SMALLHOLDER CROPPING SYSTEMS**

University of Nairobi, Nairobi , Kenya, Nancy.Karanja@cgiar.org

09:30 Plenary Speaker-6 : Prof. Jan Willem Erisman, THE NETHERLANDS

**OPTIONS FOR INCLUDING NITROGEN MANAGEMENT IN CLIMATE POLICY
DEVELOPMENT – REPORT ON NITROGEN AND CLIMATE**

Jan Willem Erisman, Energy research Centre of the Netherlands, ECN, 1755 ZG Petten, the Netherlands, erisman@ecn.nl

10:00 Plenary Speaker-7 : Dr. A.K. Singh, INDIA

NUTRIENT BASED SUBSIDY IN INDIA

Deputy Director General (NRM), Indian Council of Agricultural Research, New Delhi, India

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PLENARY TALKS SESSION -3

Day & Date : Monday. 06 December, 2010

Time: 09:00 – 11:00 Convention Hall

CHAIRMAN :

Co-Chairman:

09:00 Plenary Speaker-8 : Dr. Michel Prud'homme, FRANCE

GLOBAL OUTLOOK FOR WORLD FERTILIZER DEMAND, SUPPLY AND SUPPLY/DEMAND BALANCES.

International Fertilizer Industries Association (IFA), Paris, France, mprudhomme@fertilizer.org

09:30 Plenary Speaker-9 : Prof. Nancy B. Dise, UNITED KINGDOM

NITROGEN DEPOSITION AS A THREAT TO EUROPEAN TERRESTRIAL BIODIVERSITY

Department of Environmental and Geographical Sciences, Manchester Metropolitan University, Manchester, UK, n.dise@mmu.ac.uk

10:00 Plenary Speaker-10 : Dr. Clifford S. Snyder, USA

NITROGEN MANAGEMENT TO HELP REDUCE GREENHOUSE GAS EMISSIONS

Nitrogen Program Director, International Plant Nutrition Institute, P.O. Drawer 2440, Conway, AR 72033 USA, csnyder@ipni.net

10:30 Plenary Speaker-11 : Prof. Mark Alexander Sutton, UNITED KINGDOM

OVERVIEW AND PREVIEW OF THE EUROPEAN NITROGEN ASSESSMENT

Natural Environment Research Council, Centre for Ecology & Hydrology, (CEH Edinburgh), Bush Estate, Penicuik, Midlothian EH26 0QB, United Kingdom, ms@ceh.ac.uk

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TECHNICAL SESSION: TS-1 : Food Security: FS-1

N in crop production systems in developed and developing countries

Day & Date : Saturday, 04 December, 2010

Time: 11:30 – 13:00

Hall A (Convention Hall)

Chair Person: **Professor Fusuo Zhang**, China Agricultural University, Beijing 100193, China.

Co-Chair: **Dr. Mateete Bekunda**, Department of Soil Science, Makerere University, Kampala, Uganda.

11:30 – 11:45	N2010/Part/FS/O103 NITROGEN FERTILIZER USE AND GRAIN PRODUCTION IN CHINA, Dr. Jiyun Jin, Dr. Shutian Li , China Progam, International Plant Nutrition Institute, 315 Soil and Fertilizer Building, Chinese Academy of Agricultural Sciences, 12 South Zhongguancun Street, Beijing 100081, China, jyjin@ipni.net
11:45 – 12:00	N2010/Part/FS/O138 NITROGEN AND FOOD GRAIN PRODUCTION- INDIAN PERSPECTIVE, Rajendra Prasad, Honorary Scientist, Indian National Science Academy, New Delhi, rajuma36@gmail.com
12:00 – 12:15	N2010/Part/FS/P265/O137 EFFECTS OF FERTILIZER AND ORGANIC RESOURCE MANAGEMENT PRACTICES ON CROP PRODUCTIVITY AND N USE EFFICIENCY IN SMALLHOLDER FARMING SYSTEMS IN AFRICA , Dr. Shamie Zingore, IPNI, Soil Science & Agricultural Engineering Department, c/o IFDC - East & Southern Africa Division ICIPE compound Duduville – Kasarani, Thika Road, Nairobi, Kenya, szingore@ipni.net
12:15 – 12:30	N2010/Part/FS/O102 NITROGEN DEMAND AND MANAGEMENT FOR DOUBLE-YIELDING MAIZE, Prof. Xinping Chen, College of resource and environmental sciences, China Agricultural University, Beijing, China, chenxp@cau.edu.cn
12:30 – 12:45	N2010/Part/FS/O140 NITROGEN CYCLING IN INDIAN AGROECOSYSTEMS, D.K Benbi, ICAR National Professor, Department of Soils, Punjab Agricultural University, Ludhiana, dkbenbi@yahoo.com
12:45 – 13:00	N2010/Part/FS/O115 SCALING DOWN THE GAP BETWEEN ENVIRONMENTAL PROTECTION AND HIGH YIELD IN INTENSIVE CHINESE AGRICULTURE, Dr. Yuncai Hu, Chair of Plant Nutrition, Technische Universität München (TUM), 85350 Freising, Germany, hu@wzw.tum.de

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TECHNICAL SESSION: TS-2: Ecosystem Services & Biodiversity: ESSB-1

Reactive N transport from land systems to aquatic systems and atmosphere

Day & Date : Saturday, 04 December, 2010

Time: 11:30 – 13:00

Hall B (Convention Hall)

Chair Person: Prof. James Galloway, University of Virginia, USA

Co-Chair:

11:30 – 11:45	N2010/Part/ESSB/0451 TEMPORAL AND SPATIAL VARIABILITY IN ATMOSPHERIC AMMONIA CONCENTRATIONS IN THE WESTERN UNITED STATES, Dr. J.L. Collette, <i>Atmospheric Science Department, Colorado State University, Fort Collins, CO 80523 USA</i> , collett@atmos.colostate.edu
11:45 – 12:00	N2010/Part/ESSB/0453 N RETENTION IN FOREST SOILS AT INTERMEDIATE N DEPOSITION – WHY DO SOME SITES LEACH AND SOME NOT? , Dr. Cecilia Akselsson, <i>Sölvegatan 12, SE-223 62 Lund, Sweden</i> , cecilia.akselsson@nateko.lu.se
12:00 – 12:15	N2010/Part/ESSB/0454 STUDY ON MIXING RATIO OF AMBIENT AMMONIA AND OTHER TRACE GASES AT DIFFERENT ENVIRONMENTS OF INDIA, Dr. Sudhir K. Sharma, <i>Radio and Atmospheric Sciences Division, National Physical Laboratory, New Delhi 110012</i> , sudhir@nplindia.ernet.in
12:15 – 12:30	N2010/Part/ESSB/0455 FACTORS AFFECTING THE CONCENTRATION OF NITRATES IN GROUNDWATER IN THE RICE-WHEAT CROPPING SYSTEM OF INDIA: A GEO-SPATIAL APPROACH, Dr. Parvesh Chandna, <i>International Rice Research Institute (IRRI), NASC Complex, DPS Marg, PUSA, New Delhi 110012, India</i> , P.K.Chandna@cgiar.org
12:30 – 12:45	N2010/Part/ESSB/0457 ESTIMATION OF NITROGEN SATURATED POTENTIAL ACIDITY OF RAIN WATER AT VARIOUS SITES IN INDIA, Dr. Umesh Kulshrestha, <i>School of Environmental Sciences, Jawaharlal Nehru University, New Delhi 110067</i> , umeshkulshrestha@yahoo.in
12:45 – 13:00	N2010/Part/ESSB/P409/O481 GASEOUS LOSSES OF THE UREA-BASED FERTILIZER UNDER COUPLED WATER-NITROGEN MANAGEMENT STRATEGIES IN THE NORTH CHINA PLAIN, Dr. Ping Huang, <i>Institute of Soil Science, Chinese Academy of Sciences (ISS, CAS), 71 East Beijing Road, Nanjing 210008, P.R. China, Nanjing, Jiangsu Province, China</i> , phuang@issas.ac.cn

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SPECIAL SESSION: SS-1: Food Security

Functional Plant Biology of Nitrogen Metabolism and Nitrogen Use Efficiency

Day & Date : Saturday, 04 December, 2010

Time: 11:30 – 13:00

Hall C (Convention Hall)

Chair Person: Prof. Y.P. Abrol, INDIA

Co-Chair: Dr. G.V. Subbarao, JAPAN

11:30 – 11:45	N2010/Part/FS-SFB/O701 IMPLICATIONS OF INEFFICIENT USE OF NITRATE BY SUGARCANE, Dr. Nicole Robinson, <i>School of Biological Science, University of Queensland, St Lucia Qld 4072, Australia</i> , nicole.robinson@uq.edu.au
11:45 – 12:00	N2010/Part/FS-SFB/O704 INTERACTIVE EFFECT OF SULPHUR AND NITROGEN ON PHOTOSYNTHETIC EFFICIENCY OF <i>BRASSICA</i> GENOTYPES (<i>BRASSICA JUNCEA</i> CV PUSA JAIKISAN AND <i>BRASSICA CAMPESTRIS</i> CV. PUSA GOLD), Dr. M. Z. Abdin, Centre for Transgenic plant Development, Department of Biotechnology, Jamia Hamdard, New Delhi – 110062, mzabdin@rediffmail.com
12:00 – 12:15	N2010/Part/FS-SFB/O703 MODULATION OF NITROGEN UTILIZATION EFFICIENCY IN WHEAT GENOTYPES DIFFERING IN NITRATE REDUCTASE ACTIVITY, Dr. Anjana , Department of Botany, Faculty of Science, Jamia Hamdard, New Delhi, anjana.virbhan@gmail.com
12:15 – 12:30	N2010/Part/FS-SFB/O706 REGULATORY PHOSPHORYLATION OF NITRATE REDUCTASE: UNDER CONTROL OF METHIONINE OXIDATION? Prof. Steven C Huber, <i>United States Department of Agriculture, Agricultural Research Service and University of Illinois, Urbana, IL 61801 USA</i> , schuber1@uiuc.edu
12:30 – 12:45	N2010/Part/FS-SFB/O708 EFFECT OF SALINITY STRESS ON NITROGEN METABOLISM IN WHEAT, Dr. R.K. Sairam, <i>Division of Plant Physiology, Indian Agricultural Research Institute, New Delhi 110012</i> , rks_ppl@yahoo.co.uk
12:45 – 13:00	

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TECHNICAL SESSION: TS-3 : Food Security: FS-2

N fertilizer management and fertilizer N use efficiency

Day & Date : Saturday, 04 December, 2010

Time: 14:00 – 15:30

Hall A (Convention Hall)

Chair Person: **Professor Deli Chen, The University of Melbourne, Melbourne, Victoria, Australia**

Co-Chair: **Dr Yadvinder Singh, Punjab Agricultural University, Ludhiana, India**

14:00 – 14:15	N2010/Part/FS/O106 FERTILIZER MANAGEMENT AND NITROGEN USE EFFICIENCY, Dr. Tom Bruulsema, <i>Director, International Plant Nutrition Institute, 18 Maplewood Drive Guelph, Ontario N1G1L8, Canada, tom.bruulsema@ipni.net</i>
14:15 – 14:30	N2010/Part/FS/O105 IMPROVING NITROGEN MANAGEMENT IN INTENSIVE RICE-WHEAT ROTATIONS IN SOUTHEASTERN CHINA, Dr. Marco Roelcke, <i>Institute of Geoecology, Technische Universitaet, Langer Kamp 19C, 38106 Braunschweig, Germany, m.roelcke@tu-bs.de</i>
14:30 – 14:45	N2010/Part/FS/O139 SITE-SPECIFIC NEED-BASED FERTILIZER NITROGEN APPLICATIONS TO CROPS – A NEED OF THE TIME, Bijay-Singh, <i>Punjab Agricultural University, Ludhiana 141 004, India</i>
14:45 – 15:00	N2010/Part/FS/O109 OPTICAL SENSOR-BASED STRATEGIES FOR IMPROVING N USE EFFICIENCY IN DEVELOPING COUNTRIES, Dr. Steve Phillips, <i>International Plant Nutrition Institute, 3118 Rocky Meadow Road, Owens Cross, Roads, AL 35763, USA, sphillips@ipni.net</i>
15:00 – 15:15	N2010/Part/FS/O104 SITE-SPECIFIC EVALUATION OF ENHANCED EFFICIENCY FERTILIZERS, C. A. Grant ¹ , A. P. Moulin ¹ and N. Tremblay ^{2, 1} , <i>AAFC Brandon Research Centre, Box 1000A, R.R.#3, Brandon, MB, Canada R7A 5Y3, ²AAFC 430 Gouin Blvd, St. Jean Sur Richelieu, QC, Canada, J3B3E6, Cynthia.Grant@agr.gc.ca</i>
15:15 – 15:30	N2010/Part/FS/O111 EFFECT OF OPTIMIZED NITROGEN APPLICATION ON NITROGEN CYCLING IN WINTER WHEAT-SUMMER CORN ROTATION SYSTEM IN NORTH CHINA, Dr. Wei Zhou, <i>Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences (CAAS), 12 South Zhongguancun Street, Beijing 100081, China, wzhou@caas.ac.cn</i>

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TECHNICAL SESSION: TS-4: Ecosystem Services & Biodiversity: ESSB-2

Atmospheric transport and deposition

Day & Date : Saturday, 04 December, 2010

Time: 14:00 – 15:30

Hall B (Convention Hall)

Chair Person: **Dr. Albert Bleeker, The Netherlands**

Co-Chair:

14:00 – 14:15	N2010/Part/ESSB/0459 SIMULATION OF NITROGEN DEPOSITION IN THE NORTH CHINA PLAIN BY THE FRAME MODEL, <i>Dr. (Ms) Ying Zhang, College of Resources and Environmental Sciences, China Agricultural University, No. 2 Yuanmingyuan West Road, Haidian District, Beijing, China, zhangying0928@hotmail.com</i>
14:15 – 14:30	N2010/Part/ESSB/0460 NITROGEN DEPOSITION AND ITS CONTRIBUTION TO NUTRIENT INPUT IN ECOSYSTEMS OF CHINA, <i>Dr. Xuejun Liu, College of Resources and Environmental Sciences, China Agricultural University, Beijing Yuanmingyuan Xilu 2, China, liu310@cau.edu.cn</i>
14:30 – 14:45	N2010/Part/ESSB/0462 MAIN SOURCES OF ATMOSPHERIC NITROGEN DEPOSITION TO THE BALTIC SEA, <i>Dr. Jerzy Bartnicki, Belyazid Consulting and Communication, Stationsvägen 13, SE-51734 Bollebygd, Sweden, jerzy.bartnicki@met.no</i>
14:45 – 15:00	N2010/Part/ESSB/0463 MODELLING THE DEPOSITION OF REACTIVE NITROGEN TO ECOSYSTEMS: ESTIMATES, UNCERTAINTIES AND SCALING ISSUES, <i>Dr. David Simpson, EMEP MSC-W, Norwegian Meteorological Institute, c/o Dept. Earth & Space Sciences Chalmers Univ. Technology SE412 96 Gothenburg, Sweden, david.simpson@chalmers.se</i>
15:00 – 15:15	N2010/Part/ESSB/0469 ECOSYSTEM RESPONSE TO NITROGEN ADDITIONS IN THREE TROPICAL FORESTS OF SOUTHERN CHINA, <i>Dr. Jiangming Mo, South China Botanical Garden, Chinese Academy of Sciences, Dinghu, Zhaoqing, Guangdong, 526070, China., mojm@scib.ac.cn</i>
15:15 – 15:30	N2010/Part/ESSB/0472 NITROGEN CYCLING AND MICROBIAL ABUNDANCE IN DIFFERENT LAND USE SYSTEMS IN NORTH-WESTERN HIMALAYAN REGION, <i>Dr. R.D. Singh, Division of Soil Science and Agricultural Chemistry, Indian Agricultural Research Institute, New Delhi 110 012, rd Singh55@gmail.com</i>

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SPECIAL SESSION: SS-2: Food Security

Functional Plant Biology of Nitrogen Metabolism and Nitrogen Use Efficiency

Day & Date : Saturday, 04 December, 2010

Time: 14:00 – 15:30

Hall C (Convention Hall)

Chair Person: Dr. Steve Huber, USDA, USA

Co-Chair: Dr. T.V.R. Nair, Former Project Director, NRL, IARI, New Delhi, India

14:00 – 14:15	N2010/Part/FS-SFB/O702 IMPROVEMENT IN NITROGEN USE EFFICIENCY IN CROP PLANTS USING NITRATE PRIMED SEEDS, Dr. Bandana Bose, <i>Dept of Plant Physiology, Inst of Agric Sciences, Banaras Hindu University, Varanasi, 221005</i> , bandana_bose2000@yahoo.com
14:15 – 14:30	N2010/Part/FS-SFB/O707 NITROGEN STRESS-INDUCED ALTERATIONS IN THE LEAF PROTEOME OF WHEAT VARIETIES, Ruby Chandna, M Mohsin, M Iqbal and <u>Altaf Ahmad</u> , Molecular Ecology Laboratory, Department of Botany, faculty of Science, Hamdard University, New Delhi, INDIA, ahmadaltaf@yahoo.com
14:30 – 14:45	N2010/Part/FS-SFB/O710 MICROARRAY PROFILING OF NITRATE RESPONSIVE GENES IN RICE, Dr. Nandula Raghuram, School of Biotechnology, Guru Gobind Singh Indraprastha University, Dwarka, New Delhi 110 075, India, raghuram98@hotmail.com
14:45 – 15:00	N2010/Part/FS-SFB/O709 BIOLOGICAL NITRIFICATION INHIBITION (BNI): A STRATEGIC POINT OF INTERVENTION FOR LIMITING NITROGEN LOSSES FROM AGRICULTURAL SYSTEMS? Dr. GV Subbarao, Crop Production and Environment Division, Japan International Research Center for Agricultural Sciences (JIRCAS), Ohwashi, Ibaraki 305-8686, Japan , Email: subbarao@jircas.affrc.go.jp
15:00 – 15:15	N2010/Part/FS-SFB/O705 DEGRADATION OF PROTEIN CARBONYLS IN <i>ARABIDOPSIS</i> IS MEDIATED BY PROTEASOMES, Dr. Vanita Jain, <i>Division of Plant Physiology, Indian agricultural research Institute, New Delhi 110 012</i> , tellvanita@yahoo.co.in
15:15 – 15:30	

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SPECIAL SESSION: SS-3: Food Security - IPI-INI-ING Session

“NITROGEN AND POTASSIUM INTERACTIONS IN SOIL AND PLANT SYSTEMS”

Day & Date : Saturday, 04 December, 2010

Time: 14:00 – 15:30

Hall D (# 293 Second Floor)

Chair Person: **Dr. J.S. Samra, CEO, National Rainfed Authority of India, New Delhi**

Co-Chair: **Dr. Hillel Magen, Director, International Potash Institute, Horgen, Switzerland**

14:00 – 14:30	N2010/Part/FS/IPI-NK/O791 THE EFFECTS OF NITROGEN FORM ON ITS INTERACTION WITH POTASSIUM, <i>Asher Bar-Tal, Institute of soil, water and environment sciences, ARO, The Volcani Center, POB6, Bet Dagan 50250, Israel, abartal@volcani.agri.gov.il</i>
14:30 – 15:00	N2010/Part/FS/IPI-NK/O792 DIFFERENT STRATEGIES FOR IMPROVING NITROGEN AND POTASSIUM USE EFFICIENCY BY BIOLOGICAL APPROACHES, <i>Guohua Xu, College of Resources and Environmental Sciences, Nanjing Agricultural University, Nanjing, China, ghxu@njau.edu.cn</i>
15:00 – 15:15	N2010/Part/FS/IPI-NK/O794 ENHANCEMENT OF ACTIVITIES OF NITROGEN METABOLIZING ENZYMES BY INTEGRATION OF K IN NUTRITIONAL MANAGEMENT OF PLANTS, <i>Shahid Umar, Department of Botany, Jamia Hamdard, New Delhi – 110062, s_umar9@hotmail.com</i>
15:15 – 15:30	N2010/Part/FS/IPI-NK/O793 ROLE OF POTASSIUM NUTRITION IN NITROGEN USE EFFICIENCY IN CEREALS, <i>M.S. Brar¹, Bijay-Singh¹, SK. Bansal² and Ch. Srinivasarao³, ¹Punjab Agricultural University, Ludhiana 141 004, Punjab, India, ²Potash Research Institute of India, Gurgaon 122 001, India, ³Central Research Institute for Dryland Agriculture, Hyderabad 500 059, India, brarms@yahoo.co.in</i>

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TECHNICAL SESSION: TS- 5 : Food Security: FS-3

N fertilizer management and fertilizer N use efficiency

Day & Date : Saturday, 04 December, 2010

Time: 16:00 – 17:30

Hall A (Convention Hall)

Chair Person: **Dr Rajendra Prasad, Former National Professor, IARI, New Delhi, India**

Co-Chair: **Dr T. Bruulsema, IPNI, 18 Maplewood Drive, Guelph, Ontario, Canada,**

16:00 – 16:15	N2010/Part/FS/O107 BEST MANAGEMENT PRACTICES TO IMPROVE FERTILIZER N USE EFFICIENCY IN ARGENTINEAN AGRICULTURE, Dr. Fernando O. Garcia, <i>IPNI Latin America Southern Cone, Av. Santa Fe 910 - (B1641ABO), Acassuso - Buenos Aires – Argentina, fgarcia@ipni.net</i>
16:15 – 16:30	N2010/Part/FS/O113 NITROGEN DYNAMICS AND FERTILIZER USE EFFICIENCY IN A CONTINUOUS CROPPING SYSTEM IN THE CENTRAL HIGHLANDS OF KENYA, Dr. Catherine Njeri Kibunja, <i>Kenya Agricultural Research Institute (KARI), Aatta University, National Agricultural Research Laboratories, P.O Box 14733-00800, NAIROBI, Kenya, catherine.kibunja@yahoo.com</i>
16:30 – 16:45	N2010/Part/FS/O112 CHANGES IN N USE EFFICIENCIES AND N BALANCE IN CONTINUOUS LONG TERM LOWLAND RICE-RICE SYSTEM, Arvind K. Shukla, A. K. Nayak, S. Moahnty, Rahul Tripathi, <i>Division of Crop Production, CRRI, Cuttack-753006, India, arvindshukla2k3@yahoo.co.in</i>
16:45 – 17:00	N2010/Part/FS/O108 IMPACTS OF NITROGEN AND MICRONUTRIENTS INTERACTIONS ON MAXIMISING CROP YIELD AND QUALITY AND NUTRIENT USE EFFICIENCY, Dr. M.S. Aulakh, <i>Punjab Agricultural University, Ludhiana – 141004, India, msaulakh2004@yahoo.co.in</i>
17:00 – 17:15	N2010/Part/FS/O110 NITROGEN MANAGEMENT STRATEGIES IN ORGANIC WINTER OILSEED RAPE (BRASSICA NAPUS L.) PRODUCTION, Dr. Maria Stenberg, <i>SLU, Dept of Soil and environment, PO Box124, SE-532-23 Skara, Sweden, Maria.Stenberg@mark.slu.se</i>
17:15 – 17:30	N2010/Part/FS/O121 EFFECT OF SILICON AND REAL-TIME NITROGEN MANAGEMENT BY ADOPTING LEAF COLOUR CHART IN AEROBIC RICE, Dr. N.B. Prakash, <i>Department of Soil Science and Agricultural Chemistry, University of Agricultural Sciences, GKVK, Bangalore, 560065, nagabovanalliprakash@rediffmail.com</i>

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TECHNICAL SESSION: TS-6: Ecosystem Services & Biodiversity: ESSB-3

Impacts of changes in global-regional N cycle on ecosystems and biodiversity

Day & Date : Saturday, 04 December, 2010

Time: 16:00 – 17:30

Hall B (Convention Hall)

Chair Person: Dr. Rick Haeuber, USA

Co-Chair:

16:00 – 16:15	N2010/Part/ESSB/0452 NUTRIENT LIMITATION IN RAIN AND CLOUD FORESTS ALONG A 3000 M ELEVATION GRADIENT IN THE PERUVIAN ANDES, Dr. Joshua B. Fisher, NASA Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California, USA, joshbfisher@gmail.com
16:15 – 16:30	N2010/Part/ESSB/0465 N AND P INPUT EFFECTS ON ECOLOGICAL DIVERSITY OF NATURAL AND DERIVED INDIAN DRY TROPICAL ECOSYSTEMS, Dr. S.K. Tripathi, Department of Forestry, Mizoram University, Aizawl, India, sk_tripathi@rediffmail.com
16:30 – 16:45	N2010/Part/ESSB/0468 MEASUREMENT OF DEPOSITIONS AND COMMUNITY DYNAMICS IN THE DOWNWIND OF COAL FIRED POWER PLANTS AND OPEN CAST COAL MINES IN A DRY TROPICAL AREA OF INDIA, Dr. Madhoolika Agrawal, Dept of Botany, Banaras Hindu University, Varanasi, 221005, India, madhoo58@yahoo.com
16:45 – 17:00	N2010/Part/ESSB/0471 AQUATIC EUTROPHICATION, CHANGES IN NITROGEN:PHOSPHORUS AVAILABILITY AND BIODIVERSITY, Dr. Patricia M. Glibert, University of Maryland, Centre for Environmental Science, Horn Point Laboratory PO Box 775, Cambridge MD 21613, USA, glibert@hpl.umces.edu
17:00 – 17:15	N2010/Part/ESSB/0476 EXCEEDANCE OF CRITICAL LOADS FOR NITROGEN AT THE WORLD'S PROTECTED AREAS, Dr. A. Bleeker, Biomass, Coal & Environmental Research, Energy Research Centre of the Netherlands, PO Box 1 1755 ZG Petten, Netherlands, albert.bleeker@planet.nl
17:15 – 17:30	N2010/Part/ESSB/O479 ESTIMATING PLANT SPECIES LOSS ACROSS THE UNITED STATES FROM HISTORICAL N DEPOSITION SINCE 1978, Dr. Christopher Michael Clark, United States Environmental Protection Agency, US EPA (8601-P) 1200 Pennsylvania Ave, Washington DC, 20460, USA, Chris.Michael.Clark@gmail.com

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TECHNICAL SESSION: TS-7 : Food Security: FS-4

Biological N fixation and Nitrogen Management

Day & Date : Sunday, 05 December, 2010

Time: 11:30 – 13:00

Hall A (Convention Hall)

Chair Person: **Dr. J.K. Ladha, International Rice Research Institute, New Delhi, India**

Co-Chair: **Dr. C. Njeri Kibunja, Kenya Agricultural Research Institute, Nairobi, Kenya.**

11:30 – 11:45	N2010/Part/FS/O117 BIOLOGICAL NITROGEN FIXATION IN RICE BY CYANOACTERIA AND NITROGEN ECONOMY, Dr. B.D. Kaushik, Gurgaon, India, bdkaushik@hotmail.com
11:45 – 12:00	N2010/Part/FS/O116 EFFECT OF ELEVATED CARBON DIOXIDE ON GROWTH AND NITROGEN FIXATION OF TWO SOYBEAN CULTIVARS IN NORTHERN CHINA, Dr. Shu Kee Lam, Melbourne School of Land and Environment, The University of Melbourne, Private Bag 260, Horsham, Victoria 3401, Australia, tree_kee@hotmail.com
12:00 – 12:15	N2010/Part/FS/O126 CARBON AND NITROGEN MINERALIZATION IN DIFFERENT SOILS OF THE TROPICS AMENDED WITH LEGUME RESIDUES AND CONTRASTING SOIL MOISTURE CONTENTS, Dr. Girma Abera Jibat, Department of Plant and Horticultural Sciences, Hawassa University, P.O.Box 05, Hawassa, Ethiopia, girmajibat2006@yahoo.com
12:15 – 12:30	N2010/Part/FS/P265/O136 REDUCTION OF CHEMICAL FERTILIZER NITROGEN USE THROUGH INTEGRATED NITROGEN MANAGEMENT IN RICE-RICE SYSTEM UNDER RAINFED MEDIUM LAND SITUATION , Dr. Ajit Baishya, Chief Agronomist, Assam Agricultural University, Jorhat-785013, baishya.ajit@gmail.com
12:30 – 12:45	N2010/Part/FS/O142 GREEN MANURING FOR IMPROVING NITROGEN SUPPLY IN AGRICULTURAL CROPPING SYSTEMS, Yadvinder Singh, Punjab Agricultural University, Ludhiana 141004, India, yadvinder16@rediffmail.com
12:45 – 13:00	N2010/Part/FS/O119 NITROGEN AGRONOMIC EFFICIENCY IN SUB- SAHARA AFRICA BASED ON BIOPHYSICAL AND SPECIFIC CROP MANAGEMENT PRACTICES, Dr. Kihara, J.M., Tropical Soil Biology and Fertility Research, The International Center for Tropical Agriculture, Nairobi, Kenya, mateeteb@yahoo.com

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TECHNICAL SESSION: TS-8 : Climate Change: CC- 1

Influence of Carbon-Nitrogen interactions on greenhouse gas balance

Day & Date : Sunday, 05 December, 2010

Time: 11:30 – 13:00

Hall B (Convention Hall)

Chair Person:

Co-Chair:

11:30 – 11:45	N2010/Part/CCS/0551 FUNCTIONAL RELATIONS OF ADDED ORGANIC MATERIAL AND NITROGENOUS FERTILISER IN REDUCING THE AGRICULTURAL EMISSIONS OF GREENHOUSE GASES, Dr. M. Ibrahim Khalil, <i>Climate Change Research Programme, Environmental Protection Agency, Johnstown Castle Estate, Wexford, Ireland</i> , i.khalil@epa.ie
11:45 – 12:00	N2010/Part/CC/0552 N DYNAMICS UNDER ELEVATED CARBON DIOXIDE IN THE AUSTRALIAN FACE EXPERIMENT, Dr. Robert Norton, <i>International Plant Nutrition Institute, 54 Florence St Horsham Victoria, 3400, Australia</i> , rnorton@ipni.net
12:00 – 12:15	N2010/Part/CC/0553 EFFECT OF NITROGEN APPLICATION ON CH ₄ AND N ₂ O EMISSIONS FROM A PADDY FIELD WITH CHINESE TYPICAL WATER MANAGEMENT, Dr. Zhisheng Yao, <i>Institute of Atmospheric Physics, Chinese Academy of Sciences, Huayanli 40 Hall, Chaoyang district, Beijing 100029, China</i> , zsyao777@yahoo.com.cn
12:15 – 12:30	N2010/Part/CC/0554 CHARACTERIZING THE DYNAMICS OF SOIL CO ₂ AND N-GAS (NO, N ₂ O, N ₂) PRODUCTION IN DENITRIFICATION PROCESS, Dr. Xunhua Zheng, <i>Institute of Atmospheric Physics, Chinese Academy of Sciences, Huayanli 40 Hall, Chaoyang district, Beijing 100029, China</i> , xunhua.zheng@post.iap.ac.cn
12:30 – 12:45	N2010/Part/CC/0555 “GLOBAL NUTRIENT LIMITATION ON LAND CARBON UPTAKE, Dr. Ying-ping wang, <i>CSIRO Marine and Atmospheric Research, 107 station Street, Aspendale, Victoria 3195 Australia</i> , yingping.wang@csiro.au
12:45 – 13:00	N2010/Part/CC/0556 INCORPORATING NITROGEN CYCLING AND FEEDBACKS IN AN INDIVIDUAL-BASED GLOBAL DYNAMIC VEGETATION MODEL, Dr. David Wårlind, <i>Department of Earth and Ecosystem Sciences, Lund University, Sölvegatan 12, 223 62 Lund, Sweden</i> , david.warlind@nateko.lu.se
13:00 – 13:15	N2010/Part/CC/0574 IMPACT OF LAND USE CHANGES AND N DEPOSITION AND FERTILIZER ON CARBON AND NITROGEN STOCKS OF PLANTS AND SOILS IN ASIA REGION , Dr. Atul Jain, <i>University of Illinois, Urbana, IL 61801, USA</i> , jain1@uiuc.edu

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SPECIAL SESSION: SS-4: Food Security

“Organic N in the soil-plant-microbe nexus”

Day & Date : Sunday, 05 December, 2010

Time: 11:30 – 13:00

Hall C (Convention Hall)

Chair Person: **Dr. S. Schmidt, School of Biological Sciences, The University of Queensland, St. Lucia Qld., Australia**

Co-Chair: **Dr D.K. Benbi, Department of Soils, Punjab Agricultural University, Ludhiana, India**

11:30 – 11:45	N2010/Part/FS-ORGN/O731 THE EFFECT OF GLUTAMINE ON ROOT DEVELOPMENT, Dr. C. A. Cambui Department of Forest Genetics and Plant Physiology, Umeå Plant Science Centre, Swedish University of Agricultural Sciences, SE-901 83 Umeå, Sweden; Camila.Cambui@genfys.slu.se
11:45 – 12:00	N2010/Part/FS-ORGN/O732 PEPTIDE TRANSPORTERS IN ARABIDOPSIS: ROLE IN INTRA- AND INTERCELLULAR TRANSPORT OF ORGANIC NITROGEN, Dr. Doris Rentsch, Institute of Plant Sciences, University of Bern, Altenbergrain 21, Switzerland; doris.rentsch@ips.unibe.ch
12:00 – 12:15	N2010/Part/FS-ORGN/O733 SMALL PEPTIDES ARE A NITROGEN SOURCE FOR PLANTS, Dr. F.M. Soper, School of Biological Sciences, The University of Queensland, St. Lucia QLD, 4072, AUSTRALIA; fiona.soper@uqconnect.edu.au
12:15 – 12:30	N2010/Part/FS-ORGN/O734 A POTENTIAL ROLE FOR ORGANIC N IN PLANT N NUTRITION, Dr. Torgny Näsholm, Department of Forest Ecology and Management, Swedish University of Agricultural Sciences, SE-901 83 Umeå, Sweden; torgny.Nasholm@seksko.slu.se
12:30 – 12:45	N2010/Part/FS-ORGN/O735 BEYOND AMINO ACIDS: ROLE OF COMPLEX ORGANIC NITROGEN FOR PLANT NITROGEN SUPPLY , Dr. Susanne Schmidt, <i>School of Biological Sciences, The University of Queensland, St. Lucia QLD, 4072, AUSTRALIA</i> , susanne.schmidt@uq.edu.au
12:45 – 13:00	N2010/Part/FS-ORGN/O736 ROLE OF ORGANIC NITROGEN IN SUGARCANE CROPPING, P. Lakshmanan ^{1*} , J. Holst ² , N. Robinson ² , K. Vinall ² , R. Brackin ² , S. Schmidt, <i>BSES Ltd. Indooroopilly, QLD 4068, AUSTRALIA</i> , plakshmanan@bses.org.au

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TECHNICAL SESSION: TS-10 : Food Security: FS-5

N fertilizer management and fertilizer N use efficiency

Day & Date : Sunday, 05 December, 2010

Time: 14:00 – 15:30

Hall A (Convention Hall)

Chair Person: **Prof. Bijay Singh, Punjab Agricultural University, Ludihana, India**

Co-Chair: **Dr M. Roelcke, Institute of Geocology, Technische Universitaet, Braunschweig, Germany**

14:00 – 14:15	N2010/Part/FS/O125 YIELD GAPS, SOIL INDIGENOUS SUPPLIES, AND NUTRIENT USE EFFICIENCY PARAMETERS FOR WHEAT IN CHINA, Dr. Ping He, <i>IPNI - China Program, Beijing, 100081 China</i> , phe@ipni.net
14:15 – 14:30	N2010/Part/FS/O123 REACTIVE NITROGEN FLOWS AND BUDGETS IN TROPICAL RICE ECOSYSTEM, Dr. Tapan Adhya, Central Rice Research Institute, Cuttack-753006, adhya@yahoo.com
14:30 – 14:45	N2010/Part/FS/O118 NITROGEN USE EFFICIENCY – A VALUABLE BUT COMPLEX INDICATOR TO EVALUATE THE EFFICIENCY OF N FERTILIZATION IN CROP PRODUCTION, Dr. Frank Brentrup, Yara International ASA, Research Centre Hanninghof, Hanninghof 35, D-48249 Duermen, Germany, frank.brentrup@yara.com
14:45 – 15:00	N2010/Part/FS/O127 EVALUATION OF LABORATORY INDEXES TO ASSESS PLANT AVAILABILITY OF ORGANIC N IN ORGANIC MATERIALS, Dr. R.S. Antil, <i>Department of Soil Science, CCS Haryana Agricultural University, Hisar – 125004</i> , antilhau_56@rediffmail.com
15:00 – 15:15	N2010/Part/FS/O124 ENHANCING NITROGEN USE EFFICIENCY IN RICE-WHEAT SYSTEM IN RELATION TO RESIDUE AND MANURE APPLICATION, Dr. D.K. Benbi, <i>ICAR National Professor, Department of Soils, Punjab Agricultural University, Ludhiana 141004</i> , dkbenbi@yahoo.com
15:15 – 15:30	N2010/Part/FS/O141 SUSTAINABLE NITROGEN RECOVERY FROM URBAN SOLID AND LIQUID WASTES, HN Chanakya ¹ , Himanshu Khuntia ¹ , Sreesha Malayil ¹ , Priyanka Murthy ¹ and Sharatchandra HC ² , ¹ -Centre for Sustainable Technologies, Indian Institute of Science, Bangalore 560 012, ² -former Chairman, Karnataka State Pollution Control Board, Bangalore, hoysull@gmail.com

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TECHNICAL SESSION: TS-11 : Climate Change: CC- 2

Nitrogen management & greenhouse gas emissions

Day & Date : Sunday, 05 December, 2010

Time: 14:00 – 15:30

Hall B (Convention Hall)

Chair Person:

Co-Chair:

14:00 – 14:15	N2010/Part/CC/0557 NITROUS OXIDE EMISSIONS FROM ANTHROPOGENIC SOURCES OF CHINA IN 1978-2004, Dr. Shenghui Han, <i>Institute of Atmospheric Physics, Chinese Academy of Sciences, Huayanli 40 Hall, Chaoyang District, Beijing 100029, China</i> , Shenghui_han@post.iap.ac.cn
14:15 – 14:30	N2010/Part/CC/0558 ESTIMATING CRITICAL LOADS OF NITROGEN DEPOSITION UNDER CLIMATE CHANGE BASED ON CHEMICAL AND BIOLOGICAL CRITERIA, Dr. Salim Belyazid, <i>Belyazid Consulting and Communication, Stationsvägen 13, SE-51734 Bollebygd, Sweden</i> , salim@belyazid.com
14:30 – 14:45	N2010/Part/CC/0559 EFFECT OF REACTIVE NITROGEN ON THE EUROPEAN GREENHOUSE BALANCE, Dr. Klaus Butterbach-Bahl, <i>Karlsruhe Institute of Technology, Institute for Meteorology and Climate Research (IMK-IFU) Kreuzteckbahnstr. 19, 82467 Garmisch-Partenkirchen, Germany</i> , klaus.butterbach-bahl@kit.edu
14:45 – 15:00	N2010/Part/CC/0560 GREENHOUSE GAS EMISSION AND MITIGATION IN INDIAN AGRICULTURE, Dr. Himanshu Pathak, <i>Division of Environmental Sciences, Indian Agricultural Research Institute, New Delhi 110012</i> , hpathak.iari@gmail.com
15:00 – 15:15	N2010/Part/CC/0562 ESTIMATES OF GREENHOUSE GAS (N ₂ O AND CO ₂) MITIGATION POTENTIAL IN CHINESE CROPLANDS, Dr. Yao Huang, <i>LAPC, Institute of Atmospheric Physics, Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing, China</i> , huangy@mail.iap.ac.cn
15:15 – 15:30	N2010/Part/CC/0564 THE IMPACT OF MINERAL FERTILIZERS ON THE CARBON FOOTPRINT OF WHEAT PRODUCTION AND OPTIONS TO REDUCE IT, Dr. Frank Brentrup, <i>Yara International ASA, Research Centre Hanninghof, Hanninghof 35, D-48249 Duermen, Germany</i> , frank.brentrup@yara.com

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TECHNICAL SESSION: TS-12 : Integration: IN- 1

Improving the mechanistic understanding of N cycle processes

Day & Date : Sunday, 05 December, 2010

Time: 14:00 – 15:30

Hall C (Convention Hall)

Chair Person: Dr. Eric Davidson,

Co-Chair:

14:00 – 14:15	N2010/Part/IN/0651 RHIZOSPHERE–MICROBIAL INTERACTIONS VIS-À-VIS NITROGEN MINERALIZATION AND AVAILABILITY: SOME CASE STUDIES, Dr. D.D. Patra, <i>Agronomy & Soil Science Division, Central Institute of Medicinal and Aromatic Plants (CSIR), P.O. CIMAP, Lucknow-226015, India, ddpatra@rediffmail.com</i>
14:15 – 14:30	N2010/Part/IN/0652 THE CARBON COST OF PLANT NITROGEN ACQUISITION: A GLOBAL MODEL, Dr. Joshua B. Fisher, <i>NASA Jet Propulsion Laboratory, 4800 Oak Grove Dr., Pasadena, CA, 91109, USA, joshbfisher@gmail.com</i>
14:30 – 14:45	N2010/Part/IN/0653 ANALYZING NITROGEN POLLUTION IN KASAOKA BAY RECLAIMED FIELDS BY USING STABLE ISOTOPE NATURAL ABUNDANCES, Dr. Morihiro Maeda, <i>Graduate School of Environmental Science, Okayama University / JST CREST, 3-1-1, Tsushima-Naka, Kita-Ku, , Okayama 700-8530, Japan, mun@cc.okayama-u.ac.jp</i>
14:45 – 15:00	N2010/Part/IN/0654 DISTRIBUTION OF AMMONIA IN GASEOUS AND AEROSOL PHASE AND ITS DIURNAL AND NOCTURNAL VARIATIONS AT DELHI, Dr. U C Kulshrestha, <i>School of Environmental Science, Jawaharlal Nehru University, New Delhi 110067, umeshkulshrestha@yahoo.in</i>
15:00 – 15:15	N2010/Part/IN/0655 NITROGEN FLOW IN CHINA'S AGRO-ECOSYSTEM AND ITS ENVIRONMENTAL IMPACTS, Dr. Chen Minpeng, Room 606, Sino-Japan Building, Division of Climate Change; Center for Agriculture & Climate Change, Institute of Environment and Sustainable Development in Agriculture (IEDA), Chinese Academy of Agricultural Sciences (CAAS), Zhongguancun South Street, Haidian District, Beijing, 100081, China, chenminpeng@tsinghua.org.cn
15:15 – 15:30	N2010/Part/ IN /P611-O675 URINE SEPARATION IN SANITATION SYSTEMS AS AN ALTERNATIVE FOR THE SUSTAINABLE MANAGMENT OF ANTROPHOGENIC NITROGEN, F. R. A. Nascimento, Student of Industrial Engineering Program (PEI) – Federal University of Bahia. Clean Technology Network – TECLIM, Rua Aristides Novis, 02 - Deptº de Eng. ambiental - 4º andar - sala 4, Brazil, engenheirofranciscoramon@hotmail.com

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TECHNICAL SESSION: TS-13 : Food Security: FS-6

Policy issues in fertilizer N management

Day & Date : Sunday, 05 December, 2010

Time: 16:00 – 17:30

Hall B (Convention Hall)

Chair Person: **Prof. Jan Willem Erisman, Energy Research Centre of the Netherlands, Petten, the Netherlands.**

Co-Chair: **Dr Cliff Snyder, International Plant Nutrition Institute, Conway, AR, USA**

16:00 – 16:15	N2010/Part/FS/O122 NITROGEN MANAGEMENT IN CALIFORNIA CROP PRODUCTION: A BASELINE TO INFORM POLICY AND RESEARCH, Dr. Todd S. Rosenstock, <i>Agricultural Sustainability Institute, University of California Davis, 141 Robbins Hall One Shields Avenue, Davis, CA 95616 USA</i> , trosenstock@ucdavis.edu
16:15 – 16:30	N2010/Part/FS/O128 CHARACTERIZATION OF AREAS OF VULNERABILITY TO NITROGEN RISK IN CURRENT AND FUTURE CLIMATES FOR ENVIRONMENTAL POLICY RESPONSE, Dr. N.S. Rao, <i>Global Change and Ecosystem Services, Science + Knowledge Division, Conservation International, Arlington, VA 22202, USA</i> , n.rao@conservation.org
16:30 – 16:45	N2010/Part/FS/O131 AWARENESS OF NITROGEN MANAGEMENT IN RICE-- STATE OF ART AND FUTURE THRUST FOR FOOD & ENVIRONMENTAL SECURITY, Dr. A. Ghosh, <i>Crop Production, Agronomy, Central Rice Research Institute, Cuttack</i> , aghosh@crri.in
16:45 – 17:00	N2010/Part/FS/O129 N USE IN CHINA: TRADEOFFS BETWEEN FOOD SECURITY, FARM HOUSEHOLD INCOMES AND THE ENVIRONMENT, Dr. David Norse, <i>Environment Institute, University College London, Gower Street, London Herons View, Molemeber Road, East Molesey, Surrey, United Kingdom</i> , d.norse@ucl.ac.uk
17:00 – 17:15	N2010/Part/FS/O132 CROP, SOIL, AND NITROGEN FERTILIZER MANAGEMENT STRATEGIES TO REDUCE NITRATE ACCUMULATION IN PLANTS AND IMPROVE NITROGEN USE EFFICIENCY, Dr. Harmandeep Singh, <i>IPNI- South Asia (West Region), Flat No. D-101, Satin Brick, Survey No. 56, Kharadi, Near Aaple Ghar Housing Society, Pune 411014</i> , hsingh@ipni.net
17:15 – 17:30	N2010/Part/FS/P233/O135 EVALUATION OF UREA AND ESN BLENDS FOR TIMOTHY PRODUCTION IN NORTHERN ONTARIO, CANADA, T.S. Sahota ^{1*} , J. Rowsell ² , H. Dhillon ¹ and J. Kobler ² , ¹ <i>Thunder Bay Agricultural Res. Stn., Thunder Bay, ON, P7E 5T6</i> , ² <i>New Liskeard Agricultural Res. Stn. Kemptville College, University of Guelph, New Liskeard, ON, P0J 1P0, Canada</i> , tarloksahota@tbaytel.net

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TECHNICAL SESSION: TS-14 : Integration: IN- 2

Assessing N flows on multiple spatial scales & New directions in modelling the N cascade

Day & Date : Sunday, 05 December, 2010

Time: 16:00 – 17:30

Hall C (Convention Hall)

Chair Person: Dr. Cheryl Palm

Co-Chair:

16:00 – 16:15	N2010/Part/IN/0656 N BALANCE IN AGRICULTURAL LAND AND WATER POLLUTION IN ASIAN COUNTRIES BASED ON A NITROGEN FLOW MODEL, Dr. Junko Shindo, <i>National Institute for Agro-Environmental Sciences, Kannondai 3-1-3, Tsukuba, Ibaraki, Japan</i> , shindo@niaes.affrc.go.jp
16:15 – 16:30	N2010/Part/IN/0658 USE OF NITROGEN INDICATORS IN NATURAL AND AGRO-ECOSYSTEMS, Dr. Klaas W. Van der Hoek, <i>RIVM, P.O. Box 1 3720, BA Bilthoven The Netherlands</i> , klaas.van.der.hoek@rivm.nl
16:30 – 16:45	N2010/Part/IN/0670 THE FLOW OF NITROGEN AND ITS FATE IN URBAN LANDSCAPES , Dr. Anastasia. Svirejeva-Hopkins, <i>Potsdam Institute for Climate, Telegrafenberg , A31, Potsdam, Germany</i> , hopkins@pik-potsdam.de
16:45 – 17:00	N2010/Part/IN/0662 USE OF MODIS VEGETATION INDICES IN CONTINENTAL AND REGIONAL-SCALE MODELS OF REACTIVE NITROGEN IN WATERSHEDS, Dr. R.A. Smith, <i>United States Geological Survey, MS 413 National Center, Reston VA 20192, USA</i> , rsmith1@usgs.gov
17:00 – 17:15	N2010/Part/IN/0669 CHANGES IN AGRICULTURAL N USE AND ENVIRONMENTAL IMPACT INDICATORS IN JAPAN FROM 1990 TO 2005 , Dr. Shinichiro Mishima, <i>National Institute for Agro-Environemntal Sciences, Kannondai 3-1-3 Tsukuba Ibaraki 305-8604, Japan</i> , shin@affrc.go.jp
17:15 – 17:30	N2010/Part/IN/0672 NITROGEN POOLS AND FLUXES IN AFRICA: A PRE-ASSESSMENT , Dr. Peter Ebanyat, <i>Department of Soil Science, Makerere University, Kampala, Uganda</i> ,

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TECHNICAL SESSION: TS-15 : Energy Security & Industry: ESI-1

Day & Date : Monday, 06 December, 2010

Time: 11:30 – 13:00

Hall A (Convention Hall)

Chair Person: Dr. Michelle Prud'homme, IFA, Paris, France

Co-Chair: Dr. R.K. Tewatia, Fertiliser Association of India, New Delhi, India

11:30 – 11:45	N2010/Part/ESI/O801 Impact of Biofuel Production on World Nitrogen Fertilizer Demand: Current Situation and Outlook, Dr. Patrick Heffer , International Fertilizer Industry Association, 28 rue Marbeuf, 75008 Paris, France, pheffer@fertilizer.org
11:45 – 12:00	N2010/IND-Inv/ESI/O803 ASSESSMENT OF ATMOSPHERIC ASSIMILATION POTENTIAL OF NITROGEN EMISSIONS FROM POWER PLANTS , <i>Dr. S.K. Goyal, Air Pollution Control Division, National Environmental Engineering, Research Institute (NEERI), Nehru Marg, Nagpur 440020, sk_goyal@neeri.res.in</i>
12:00 – 12:15	N2010/IND-Inv/ESI/O805 OVERVIEW OF NOX REDUCTION STRATEGIES IN AUTOMOBILES, <i>N B Chougule, TATA Motors Limited, Pune, India, nbchougule@tatamotors.com</i>
12:15 – 12:30	N2010/IND-Inv/ESI/O804 HYDROGEN FROM BIOMASS , Prof. M.S. Hegde, Solid State and Structural Chemistry Unit, Indian Institute of Science, Bangalore 560012, mshegde@sscu.iisc.ernet.in
12:30 – 12:45	N2010/IND-Inv/ESI/O802 SLOW-RELEASE AND CONTROLLED-RELEASE NITROGEN FERTILIZERS, Dr. Chandrika Varadachari, Raman Centre for Applied and Interdisciplinary Sciences, 16A Jheel Road, Kolkata 700075, cv@rcais.res.in
12:45 – 13:00	

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TECHNICAL SESSION: TS-16 : Integration: IN- 3

Nitrogen Assessments & Future scenarios of N flows and impacts

Day & Date : Monday, 06 December, 2010

Time: 11:30 – 13:00

Hall B (Convention Hall)

Chair Person: Dr. Mark Sutton, United Kingdom

Co-Chair:

11:30 – 11:45	N2010/Part/IN/0659 A NITROGEN MASS BALANCE FOR CALIFORNIA, Dr. Daniel Liptzin, <i>Agricultural Sustainability Institute, University of California, One Shields Avenue, Davis, CA 95616, United States of America</i> , liptzin@ucdavis.edu
11:45 – 12:00	N2010/Part/IN/0666 AN INTEGRATED NITROGEN MANAGEMENT STRATEGY FOR THE UNITED STATES, Dr. James Galloway, <i>Department of Environmental Sciences, University of Virginia, Charlottesville VA, USA</i> , jng@virginia.edu
12:00 – 12:15	N2010/Part/IN/0657 TOWARDS A NITROGEN ASSESSMENT FOR THE USA, Dr. Eric A. Davidson, <i>The Woods Hole Research Center, 149 Woods Hole Road, Falmouth, MA 02540-1644, USA</i> , edavidson@whrc.org
12:15 – 12:30	N2010/Part/IN/0660 BUILDING A NATIONAL REACTIVE N BUDGET FOR CANADA: A WORK IN PROGRESS, Dr. Thomas A. Clair, <i>Water Science and Technology Division, Environment Canada, 45 Alderney Dr., Halifax, Nova Scotia, B2Y 2N6, CANADA</i> , tom.clair@ec.gc.ca
12:30 – 12:45	N2010/Part/IN/0661 AN INTEGRATED NITROGEN BUDGET FOR EUROPE, Dr. Adrian Leip, <i>European Commission - Joint Research Centre – Institute for Environment and Sustainability, Via E. Fermi, 1 - 21027 Ispra (Va), Italy</i> , adrian.leip@jrc.ec.europa.eu
12:45 – 13:00	N2010/Part/IN/0671 TOWARDS AFRICAN NITROGEN ASSESSMENT , Dr. Mateete Bekunda, <i>Kampala International University, Nairobi Centre, Kenya</i> , mateeteb@yahoo.com

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TECHNICAL SESSION: TS-17: Ecosystem Services & Biodiversity: ESSB-4

Modelling the impacts of nitrogen on ecosystem health and biodiversity

Day & Date : Monday, 06 December, 2010

Time: 11:30 – 13:15

Hall C (Convention Hall)

Chair Person: Dr. (Ms) Madhoolika Agrawal, BHU, India

Co-Chair:

11:30 – 11:45	N2010/Part/ESSB/0461 NITRATE ENRICHMENT IN GROUNDWATER FROM LONG-TERM INTENSIVE AGRICULTURE: ITS MECHANISTIC PATHWAYS AND PREDICTION THROUGH MODELING, <i>Dr. Biswapati Mandal, BCKVV, Kalyani - 741 235, West Bengal, India, mandalbiswapati@rediffmail.com</i>
11:45 – 12:00	N2010/Part/ESSB/0466 SHORT-TERM AND POST-FELLING IMPACTS OF N FERTILIZATION AND CLIMATE ON N LEACHING FROM A BOREAL PINE FOREST, <i>Dr. Annemieke Gärdenäs, Dept. of Soil & Environment, Swedish University of Agricultural Sciences, PO Box 7001, Sweden, Annemieke.Gardenas@mark.slu.se</i>
12:00 – 12:15	N2010/Part/ESSB/0467 DEVELOPMENT OF A GLOBAL SCALE PROCESS-BASED TERRESTRIAL-BIOGEOCHEMICAL-NITROGEN-CYCLE (TBNC) MODEL, <i>Dr. Bin-Le Lin, Research Institute of Science for Safety and Sustainability, National Institute of Advanced Industrial Science And Technology, 16-1 Onogawa, Tukuba City, 305-8569, Japan, binle-lin@aist.go.jp</i>
12:15 – 12:30	N2010/Part/ESSB/0473 CHANGING IN NITROGEN AVAILABILITY AND PLANT BIODIVERSITY DUE TO ATMOSPHERIC DEPOSITION AND CLIMATE CHANGE, <i>Dr. Jerzy Bartnicki, Belyazid Consulting and Communication, Stationsvägen 13, SE-51734 Bollebygd, Sweden, jerzy.bartnicki@met.no</i>
12:30 – 12:45	N2010/Part/ESSB/0474 Modelling impacts of changes in nitrogen deposition and climate on ecosystem services in the period 1900-2050, <i>Dr. Wim de Vries, Alterra, Wageningen University and Research Centre (WUR), PO Box 47, 6700 AA Wageningen, Netherlands, wim.devries@wur.nl</i>
12:45 – 13:00	N2010/Part/ESSB/0477 AREA-WIDE AND HIGH-RESOLUTION MODELING OF NITROGEN DEPOSITIO AND ECOSYSTEM IMPACT IN GERMAN, <i>Dr. M Geupel, Federal Environment Agency Germany, 06844 Dessau-Rosslau, Germany, markus.geupel@uba.de</i>

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TECHNICAL SESSION: TS-18 : Food Security: FS-7

N fertilizer management and fertilizer N use efficiency

Day & Date : Monday, 06 December, 2010

Time: 11:30 – 13:00

Hall D (# 293 Second Floor)

Chair Person: **Dr Cynthia Grant, Brandon Research Centre, Brandon, MB, Canada.**

Co-Chair: **Dr Fernando Garcia, International Plant Nutrition Institute, Acassuso, Buenos Aires, Argentina.**

11:30 – 11:45	N2010/Part/FS/O133 NITRATE POLLUTION OF GROUND WATER, E.V.S.PRAKASA RAO, K.PUTTANNA, <i>Central Institute of Medicinal and Aromatic Plants, Allalassandra, GKVK Post, Bangalore,</i> evsprakasarao@gmail.com
11:45 – 12:00	N2010/Part/FS/O134 IMPACTS OF N FERTIGATION VIA SPRINKLER AND FURROW IRRIGATION SYSTEMS ON YIELD AND YIELD COMPONENTS OF SWEET CORN, M.E. Asadi, <i>Department of Agricultural Engineering Research, Agricultural and Natural Resources Research Center of Golestan Province, Gorgan 4915677555, Iran,</i> iwc977127@yahoo.com
12:00 – 12:15	N2010/Part/FS/P215-O143 ENHANCED SOIL FERTILITY, BIOMASS AND YEILD OF SOME MAJOR TROPICAL CROPS SUPPLIED WITH ORGANIC MATRIX BASED GRANULAR SLOW RELEASE FERTILIZERS, Rana P. Singh, <i>Department of Environment Science, Babasaheb Bhimrao Ambedkar Universiy, Lucknow 226025, India,</i> ranapsingh1@hotmail.com
12:15 – 12:30	N2010/Part/FS/P254-O144 QUANTIFICATION, SIMULATION AND MITIGATION OF AMMONIA VOLATILIZATION FROM INTENSIVE AGRICULTURE, Deli Chen, Yong Li, Tom Denmead, John Freney, <i>Melbourne School of Land and Environment, The University of Melbourne, Victoria 3010, Australia,</i> delichen@unimelb.edu.au
12:30 – 12:45	
12:45 – 13:00	

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TECHNICAL SESSION: TS-19 : Climate Change: CC- 3

Land management practices on GHG emissions

Day & Date : Monday, 06 December, 2010

Time: 14:00 – 15:30

Hall A (Convention Hall)

Chair Person:

Co-Chair:

14:00 – 14:15	N2010/Part/CC/0563 A COMPARISON OF REACTIVE N FLUXES AND CONCENTRATIONS IN EUROPEAN ECOSYSTEMS, Dr. Ute Skiba, <i>Centre for Ecology and Hydrology, Bush Estate, Penicuik, Midlothian EH26 0QB, UK, United Kingdom, ums@ceh.ac.uk</i>
14:15 – 14:30	N2010/Part/CC/0565 POLICIES TO IMPROVE NITROGEN FERTILIZATION TOWARD A LOWER CARBON ECONOMY IN CHINA, Dr. Weifeng Zhang, Associate-Professor, College of resources and Environmental Science, China Agricultural University, Beijing, China, wfzhang@cau.edu.cn
14:30 – 14:45	N2010/Part/CC/0566 CARBON INPUT DRIVES NITROGEN CYCLING IN LAND ECOSYSTEMS UNDER GLOBAL CHANGE, Dr. Yiqi Luo, <i>Department of Botany, Stephenson Research and Technology Center, 101 David L. Boren Blvd. Norman, Oklahoma, United States of America, ylo@ou.edu</i>
14:45 – 15:00	N2010/Part/CC/0567 NET GLOBAL WARMING POTENTIAL OF DIFFERENT CROP ROTATION SYSTEMS AND MANAGEMENT MEASURES ON THE NORTH CHINA PLAIN, Prof. Dr. Xiaotang Ju, College of resources and Environmental Science, China Agricultural University, Beijing, China, juxt@cau.edu.cn
15:00 – 15:15	N2010/Part/CC/0568 MEASUREMENTS OF NITROUS OXIDE EMISSIONS FROM RICE-BASED, LEGUME-BASED, AND VEGETABLE ECOSYSTEMS IN CHINA, Dr. Zhengqin Xiong, <i>Nanjing Agricultural University, Weigang #1, Nanjing, 210095, China, zqxiong@njau.edu.cn</i>
15:15 – 15:30	N2010/Part/CC/0569 MEASUREMENT, MODELLING AND MITIGATION OF N ₂ O EMISSIONS FROM AGRICULTURE IN AUSTRALIA AND CHINA, Dr. Deli Chen, <i>Melbourne School of Land and Environment, The University of Melbourne, Victoria 3010, Australia, delichen@unimelb.edu.au</i>

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TECHNICAL SESSION: TS-20 : Integration: IN- 4

Challenges of integrating nitrogen science and policies

Day & Date : Monday, 06 December, 2010

Time: 14:00 – 15:30

Hall B (Convention Hall)

Chair Person:

Co-Chair:

14:00 – 14:15	N2010/Part/IN/0663 INTEGRATED NITROGEN CEILINGS APPROACH: HOW TO MANAGE EXCESS NITROGEN, Dr. A. Bleeker, <i>Biomass, Coal & Environmental Research, Energy Research Centre of the Netherlands, PO Box 1 1755 ZG Petten, The Netherlands, a.bleeker@ecm.nl</i>
14:15 – 14:30	N2010/Part/IN/0664 NITROGEN AND AFRICAN GREEN REVOLUTION: WILL NITROGEN LOADING LEAD TO ENVIRONMENTAL DEGRADATION? , Dr. Martina Havlikova, <i>Columbia University, The Earth Institute, Tropical Agriculture Program, P.O.Box 1000, 61 Route 9W, Palisades, New York, United States of America, mh3008@columbia.edu</i>
14:30 – 14:45	N2010/Part/IN/0665 AGRICULTURAL AMMONIA ATMOSPHERIC POLLUTION: RESEARCH, POLICY AND CHALLENGES, Dr. Viney P. Aneja, <i>Dept. of Marine, Earth and Atmospheric Science, North Carolina State University Campus , Box 8208 Raleigh, NC 27695-8208, USA, viney_aneja@ncsu.edu</i>
14:45 – 15:00	N2010/Part/IN/0667 N-PRINT: A TOOL FOR INTEGRATED NITROGEN MANAGEMENT, <i>Allison Leach, Dr. James Galloway, Department of Environmental Sciences, University of Virginia, Charlottesville VA, USA, jng@virginia.edu</i>
15:00 – 15:15	N2010/Part/IN/0668 N EMISSION ABATEMENT UNDER THE UNECE CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION (CLRTAP), Dr. Till Spranger, <i>Federal Ministry of the Environment, Nature Conservation and Nuclear Safety, Alexanderstr. 3, 10178 Berlin, Germany, till.spranger@bmu.bund.de</i>
15:15 – 15:30	N2010/Part/IN/0673 NITROGEN FOOTPRINT ANALYSIS FOR INDIA , Dr. Krishna Prasad Vadrevu, <i>Department of Geography, University of Maryland, 4321 Hartwick Road, Suite 209, College Park, Maryland, USA, krishna@hermes.geog.umd.edu</i>
15:30 – 15:45	N2010/Part/IN/0674 COSTS AND BENEFITS OF NITROGEN FOR EUROPE , Dr. Hans van Grinsven, <i>Dept: Water, Agriculture and Food, Netherlands Environmental Assessment Agency, P.O.Box 303, 3720 AH BILTHOVEN, Netherlands, Hans.vanGrinsven@pbl.nl</i>

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TECHNICAL SESSION: TS-21: Ecosystem Services & Biodiversity: ESSB-5

Nitrogen budget and nitrogen accounting methods and applications

Day & Date : Saturday, 06 December, 2010

Time: 14:00 – 15:30

Hall C (Convention Hall)

Chair Person: Dr. Dennis Swaney

Co-Chair:

14:00 – 14:15	N2010/Part/ESSB/17a/O752 A TOOLBOX FOR CALCULATING NET ANTHROPOGENIC NITROGEN INPUTS (NANI), <i>Dr. Bongghi Hong, 103 Little Rice Hall, Dept. Of Ecology & Evolutionary Biology, Cornell University, Ithaca, New York, USA, bongghi@gmail.com</i>
14:15 – 14:30	N2010/Part/ESSB/17a/O753 ATMOSPHERIC DRY DEPOSITION OF REACTIVE NITROGEN TO THE TROPICAL BAY OF BENGAL, <i>Bikkina Srinivas, Chemistry Department, Geosciences Division, Physical Research Laboratory, Navrangpura, Ahmedabad 380 009, India, srinivas.prl@gmail.com</i>
14:30 – 14:45	N2010/Part/ESSB/17a/O754 NET ANTHROPOGENIC NITROGEN INPUTS TO BALTIC SEA CATCHMENT-REGIONAL RIVERINE N EXPORT PATTERNS IN BOREAL VS CULTIVATED WATERSHEDS, <i>Dr. Christoph Humborg, Baltic Nest Institute, Stockholm Resilience Centre, Stockholm University, SE – 10691 Stockholm, Sweden, christop@mbox.su.se</i>
14:45 – 15:00	N2010/Part/ESSB/17a/O755 NITROGEN EXPORT TO EUROPEAN SEAS FROM 1985 TO 2005, <i>Dr. Bruna Grizzetti, IVL Swedish Environmental Research Institute, Peringe Grennfelt, Sweden, bruna.grizzetti@gmail.com</i>
15:00 – 15:15	N2010/Part/ESSB/17a/O756 NITROGEN DYNAMICS: NITRIFICATION AND DENITRIFICATION IN CHILIKA LAKE, EAST COAST OF INDIA, <i>Dr. Ajay Ray, Institute for Ocean Management, Anna University Chennai, Chennai 600025, India, rramesh_au@yahoo.com</i>
15:15 – 15:30	N2010/Part/ESSB/0475 N _R BUDGET AND SUSTAINABLE N-RECOVERY IN A SEWAGE FED URBAN WATERBODY – CASE STUDY OF VARTHUR LAKE, BANGALORE, <i>Dr. Durga Madhab Mahapatra, Centre for Sustainable Technologies,, Indian Institute of Science, Bangalore – 560012, durgamadhab@cst.iisc.ernet.in, hoysull@gmail.com</i>
15:30 – 15:45	N2010/Part/ESSB/O478 NITROGEN INPUTS ACCELERATE PHOSPHORUS CYCLING RATES ACROSS A WIDE VARIETY OF TERRESTRIAL ECOSYSTEMS, <i>Dr. Alison R. Marklein, Department of Land, Air, Water Resources, University of California, Davis, USA, armarklein@ucdavis.edu</i>

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SPECIAL SESSION: SS-5 - Special Session by FAO

NUTRIENT USE EFFICIENCY IN ANIMAL FOOD CHAINS

Day & Date : Monday, 06 December, 2010

Time: 14:00 – 15:30

Hall D (# 293 Second Floor)

Chair Person: Dr.R.M. Acharya, Former Deputy Director General, Indian Council of Agricultural Research, New Delhi

Co-Chair: Dr. Harinder Makkar, FAO, Rome, Italy

14:00 – 14:30	N2010/Part/FS/FAO/O788 NITROGEN USE EFFICIENCY IN ANIMAL FOOD CHAINS Mark J. Powell ^{1*} , Pierre Gerber ² and Carolyn Opio ² ¹ <i>USDA Agricultural Research Service, US Dairy Forage Research Center, Madison, Wisconsin USA, Mark.Powell@ars.usda.gov</i> ² <i>Animal Production and Health Division, Food and Agriculture Organization of the United Nations, Rome, Italy</i>
14:30 – 14:45	N2010/Part/FS/FAO/O784 NITROGEN FLOWS AND EMISSIONS FROM PIG PRODUCTION OF CHINA Fanghao Wang , Lin Ma, Zhengxia Dou, Wenqi Ma, Fusuo Zhang <i>College of Resources and Environmental Sciences, China Agricultural University, Beijing, China, wangfh@cau.edu.cn</i>
14:45 – 15:00	N2010/Part/FS/FAO/O785 UTILIZATION OF NITROGEN BY INTENSIVE PORTUGUESE PIG FARMS AND THE INTERCEPTION WITH THE WATER CYCLE - A FIELD STUDY Luis Ferreira , Instituto Superior de Agronomia - Department de Quimica Agricola e Ambiental, Tapada da Ajuda, 1349-017, Lisboa, Portugal, lferreira@isa.ult.pt
15:00 – 15:15	N2010/IND-Inv/FS-FAO/O790 NITROGEN USE EFFICIENCY IN POULTRY A.B. Mandal , Central Avian Research Institute, Izatnagar-243 122 (UP), India, abmcari@rediffmail.com
15:15 – 15:30	N2010/Part/FS/FAO/O783 REDUCING UNCERTAINTY IN THE ESTIMATION OF NITROGEN BUDGETS AND FLOWS FOR AFRICAN LIVESTOCK SYSTEMS M.C. Rufino and M. Herrero <i>Sustainable Livestock Futures, International Livestock Research Institute, PO Box 30709, 00100 Nairobi, KENYA, m.rufino@cgiar.org</i>

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TECHNICAL SESSION: TS-22 : Climate Change: CC- 4

Reactive N production and emissions

Day & Date : Monday, 06 December, 2010

Time: 16:00 – 17:30

Hall A (Convention Hall)

Chair Person:

Co-Chair:

16:00 – 16:15	N2010/Part/CC/0570 INVESTIGATING DENITRIFICATION HOTSOPOTS IN GROUND WATER USING $\delta^{15}\text{N}$ / $\delta^{18}\text{O}$ ISOTOPES AND MEMBRANE INLET MASS SPECTROSCOPY, Dr. Owen Fenton, Teagasc Environmental Research Centre, Johnsonstown Castle Wexford, Ireland, owen.fenton@teagasc.ie
16:15 – 16:30	N2010/Part/CC/0572 HOW DO GREENHOUSE GAS EMISSIONS FROM BIOENERGY CROPS DIFFER FROM CONVENTIONAL CROPS ? , Dr. Julia Drewer, CEH Edinburgh, Bush Estate, Penicuik, EH26 0QB, United Kingdom, juew@ceh.ac.uk
16:30 – 16:45	N2010/Part/CC/0573 HIGHLY RESOLVED NO_x EMISSION DISTRIBUTION FROM INDIAN REGION: MAPPING BY SATELLITE REMOTE SENSING , Dr. Sachin D Ghude, Indian Institute of Tropical Meteorology, Pune, India, sachinghude@tropmet.res.in
16:45 – 17:00	N2010/Part/CC/0575 AN ECONOMIC FRAMEWORK FOR EVALUATING FARMER NITROGEN DECISIONS AND GREENHOUSE GAS POLICY, Dr. R.J. Farquharson, Melbourne School of Land & Environment, The University of Melbourne and Future Farm Industries Cooperative Research Centre, Parkville Campus, Victoria 3010, Australia, bob.farquharson@unimelb.edu.au
17:00 – 17:15	N2010/Part/CC/O576 LIVESTOCK PRODUCTION AND CLIMATE CHANGE : INTERACTIONS AND MITIGATION STRATEGIES , Dr. D.N. Kamra, Head, Animal Nutrition Division, IVRI, Bareilly – 243122, India, dnkamra@rediffmail.com
17:15 – 17:30	

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SPECIAL SESSION: SS-6 : Special Session by FAO

NUTRIENT USE EFFICIENCY IN ANIMAL FOOD CHAINS

Day & Date : Monday, 06 December, 2010

Time: 16:00 – 17:30

Hall D (# 293 Second Floor)

Chair Person: Dr.M.L. Madan, Former Deputy Director General, Indian Council of Agricultural Research, New Delhi

Co-Chair: Dr. Kusumakar Sharma, Assistant Director General, ICAR, New Delhi, India

16:00 – 16:30	N2010/Part/FS/FAO/O789 ENHANCING FOOD SECURITY AND ENVIRONMENT PROTECTION THROUGH IMPROVING NITROGEN-USE EFFICIENCY IN THE ANIMAL FOOD CHAINS Harinder Makkar ¹⁾ and Gerhard Flachowsky ²⁾ ¹⁾ FAO, Animal Production and Health Division, Rome, Italy, Harinder.Makkar@fao.org , ²⁾ Federal Research Institute for Animal Health (FLI), Braunschweig, Germany
16:30 – 16:45	N2010/Part/FS/FAO/P773 IMPORTANCE OF FEED ADDITIVES ON THE NITROGEN EMISSIONS IN THE ENVIRONMENT , Dr. M. Binder, Evonik Degussa GmbH, 63457 Hanau Germany, michael.binder@evonik.com
16:45 – 17:00	N2010/Part/FS/FAO/O787 NITROGEN IN CROP-LIVESTOCK SYSTEM: IMPACTS ON SUSTAINABLE PRODUCTION BY RUMINANT LIVESTOCK Ashok K Pattanaik and Kusumakar Sharma ¹ Division of Animal Nutrition, Indian Veterinary Research Institute, Izatnagar – 243 122, India, akpattanaik1@gmail.com
17:00 – 17:15	N2010/Part/FS/FAO/O786 INCREASING THE EFFICIENCY OF DIETARY N UTILIZATION IN RUMINANTS THROUGH BYPASS PROTEIN TECHNOLOGY T.K. Walli , Former Principle Scientist and Off Head, Dairy Nutrition, NDRI,, Karnal, Presently, Chief Technical Advisor, Poshak Agrivet, Karnal, Haryana, 132001 INDIA, tejwalli@yahoo.co.in
17:15 – 17:30	Four Poster Presenters to give salient findings – 3 power point slides and 3 minutes each
17:30	GENERAL DISCUSSION

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Panel Discussion :

Integration - Global Nitrogen Assessment

Day & Date : Tuesday. 07 December, 2010

Time: 09:00 – 11:00

Convention Hall

CHAIRMAN :

Co-Chairman:

Plenary Session & Closing

Day & Date : Tuesday. 07 December, 2010

Time: 11:30 – 13:00

Convention Hall

CHAIRMAN :









Co-Chairman:

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