

Program Outline

Global Soil Security Symposium

Tuesday 19 May 2015

Global Challenges and Soil Security

Facilitator – **Cristine Morgan, Texas A&M University, USA**

7:55	Introduction - Cristine Morgan (co-organizer)
8:05	Welcome and Comments Mark Hussey , Dean and Vice Chancellor, College of Agriculture and Life Sciences, Texas A&M University, USA Craig Nessler , Director, Texas A&M AgriLife Research, USA Carolyn Olson , President, Soil Science Society of America, Senior Scientist, USA Jae Yang , Past President, International Union of Soil Sciences, Republic of Korea
8:30	Save the Soil to Save the Planet – Michael Jeffery , Advocate for Soil Health, Australian Government (former Governor General; Major General, Australian Defence Force [ret'd]), Australia
9:00	US Soil Policy – Robert Bonnie (unconfirmed, p>=0.83) , Under Secretary for Natural Resources and Environment, United States Department of Agriculture, USDA, USA
9:30	Securing Soil, Food, and Energy Production in Agroecosystems – Julie Borlaug , Assistant Director of Partnerships, The Norman Borlaug Institute for International Agriculture, USA
9:45	Soil-Water-Food Security Nexus – Rabi Mohtar , TEES Endowed Professor, Dept. of Biological & Agricultural Engineering, Texas A&M University, USA
10:05	Soil Security: Rationale – Alex. McBratney , Professor of Soil Science, Faculty of Agriculture and Environment, The University of Sydney, Australia
10:15	Break
10:35	Energy and Economic Value of Soil – Bruce McCarl , Regents Professor & Distinguished Professor of Agricultural Economics, Nobel Laureate, Texas A&M University, USA
11:05	Human Health and Soils – Florence Carré , European Research Program Coordinator, Scientific Division, Industrial Safety and Environmental Protection INERIS, France
11:35	How Soil Security is Important to Biodiversity – Helaina Black , Ecological Sciences Group Leader, The James Hutton Institute, UK
12:05	The Anthropocene – Haly Neely , Assistant Professor, Dept. of Soil and Crop Sciences, Texas A&M University, USA
12:10	Lunch
13:10	Soil Security: Dimensions – Damien Field , Senior Lecturer, Faculty of Agriculture and Environment, The University of Sydney, Australia
13:25	Discussion led by Cristine Morgan
13:55	OECD Co-operative Research Programme, Biological Resource Management for Sustainable Agricultural Systems, Vangimalla Reddy , CRP Research Theme Co-ordinator, Organization for Economic Co-operation and Development OECD, (Research Leader, Agricultural Research Service ARS, USDA), USA

Dimension: Capability

Facilitator – Mike Grundy, Commonwealth Scientific & Industrial Research Organisation, Australia

14:05	Introduction - Cristine Morgan and Mike Grundy
14:10	Soil Capability: Exploring the Functional Potentials of Different Soils – Johan Bouma , Professor Emeritus, Wageningen University, The Netherlands
14:40	Soil Capability for the United States Now and Into the Future – David Smith , Deputy Chief for Soil Science and Resource Assessment, Natural Resources Conservation Service NRCS, USDA, USA
15:10	Break
15:40	The Value of Soil Capability in Land Surface Modeling – Cristine Morgan , Professor, Dept. of Soil and Crop Sciences, Texas A&M University, USA
15:55	Links Between Soil Security and the Influence of Human Health – Erik Brevik , Professor and Chair, Dept. of Natural Sciences, Dickson State University, USA
16:10	A Framework to Link Soil Security with Sustainable Land Management Practices and Land Evaluation – Brian Murphy , Visiting Fellow, Australian National University, Australia
16:25	Predicting the Intrinsic Capacity of Terrestrial Carbon Storage Using an Integrative Approach – Sabine Grunwald , Professor, Soil and Water Science Dept., University of Florida, USA
16:30	Soil Capability from Global Digital Soil Mapping – Alex McBratney , Professor of Soil Science, Faculty of Agriculture and Environment, The University of Sydney, Australia
16:35	Discussion led by Mike Grundy
17:00	Adjourn

Wednesday 20 May 2015

Dimension: Condition

Facilitator – Johan Bouma Prof. Emeritus Wageningen University, The Netherlands

8:25	Introduction - Johan Bouma
8:30	Imperatives and Opportunities for Enhancing Soil Health – Wayne Honeycutt , Deputy Chief for Science and Technology, NRCS, USDA, USA
9:00	Sustainable Global Soil Security: Enhancing On-Farm Soil Quality Performance through Industrial-Scale Data Science and Precision Ag. Technologies – Pradip Das , Principal Researcher, Experimental Sciences, The Climate Corporation, USA
9:20	General Concepts of Valuing and Caring for Soil – Alex. McBratney , Professor of Soil Science, Faculty of Agriculture and Environment, The University of Sydney, Australia
9:40	Indicators to Promote Ecological Intensification of Agriculture – Michelle Wander , Professor, Dept. Natural Resources and Environmental Sciences, University of Illinois Urbana-Champaign, USA
10:00	Discussion led by Johan Bouma
10:20	Break

10:40	Introduction to the New NRCS Soil Health Division – Bianca Moebius-Clune , Director, NRCS, USDA, USA
10:45	Root-Microbe Interactions in Response to Soil Conditions – Anil Somenhally , Assistant Professor, Dept. of Soil and Crop Sciences, Texas A&M AgriLife Research, USA
10:50	Strategies to Improve Soil Condition in Semi-Arid Cropping Systems – Paul DeLaune , Assistant Professor, Dept. of Soil and Crop Sciences, Texas A&M AgriLife Research, USA
10:55	Soil Organic Carbon Stock and Respiration in Tropical Secondary Forests in Southern Mexico – Deb Raj Aryal , Professor, El Colegio de la Frontera Sur, Universidad Intercultural Maya de Quintana Roo, Mexico
11:00	Distinguishing between Condition and Capability – Damien Field , Senior Lecturer, Faculty of Agriculture & Environment, The University of Sydney, Australia
11:05	Soil Health of the Western U.S. Grazinglands – Dianne Stott , Soil Scientist, NRCS, USDA, USA
11:10	Cover Crop Effects on Soil Carbon and Nitrogen under Bioenergy Sorghum Crops – Upendra Sainju , Research Soil Scientist, ARS, USDA, USA
11:15	Degraded Sandstone and Siltstone-Derived Soils in Northeast Thailand: The Attempts to Improve Their Quality – Somchai Anusontpornperm , Head, Dept. of Soil Science, Kasetsart University, Thailand
11:20	Securing Our Soil in Intense Monoculture Cropping Systems –Katie Lewis , Assistant Professor, Dept. of Soil and Crop Sciences, Texas A&M AgriLife Research, USA
11:30	Simulating Impacts of Bioenergy Sorghum Residue Return on Aboveground Biomass Carbon, Soil Organic Carbon, and Greenhouse Gas Emissions – Yong Wang , Ph.D. Student, Dept. of Soil and Crop Sciences, Texas A&M AgriLife Research, USA
11:35	Using Soil Survey to Assess and Predict Soil Condition and Change, Skye Wills , Soil Scientist, NRCS, USDA, USA
11:40	Discussion led by Johan Bouma
12:00	Lunch
<i>Dimension: Capital</i>	
Facilitator – Damien Field, The University of Sydney, Australia	
13:00	Introduction – Damien Field (co-organizer)
13:05	The Dollars and Cents of Soil Health – Chuck Benbrook , Research Professor, Center for Sustaining Agriculture and Natural Resources, Washington State University, USA
13:35	Linking Changes in Soil Condition to the Capability of Soils to Perform Ecosystem Services – Estelle Dominati , Research Scientist, Land & Environment Group, AgResearch, New Zealand
14:05	Economics of Land Degradation Contribution to Soil Security in Eurasia – Pavel Krasilnikov , Head, Land Resources Dept., Lomonosov Moscow State University, Russia
14:35	Discussion led by Damien Field
15:00	Break

15:30	The Meta Soil Model: An Integrative Multi-Model Framework for Soil Security – Sabine Grunwald , Professor, Soil and Water Science Dept., University of Florida, USA
16:00	The Value of Global Soil Ecosystem Services– Alex. McBratney , Professor of Soil Science, Faculty of Agriculture and Environment, The University of Sydney, Australia
16:05	The Value of Embedded Soil Knowledge – Dianna Bagnall , Project Manager, Corporate Relations, Texas A&M AgriLife Research, USA
16:10	Integrative Ecosystem Service Assessment Using Bayesian Belief Networks – Sabine Grunwald , Professor, Soil and Water Science Dept., University of Florida, USA
16:15	The Economic Cost of Soil Contamination – Florence Carré , European Research Program Coordinator, Scientific Division, Industrial Safety and Environmental Protection INERIS, France
16:20	Social Licensing – Cristine Morgan , Professor, Dept. of Soil and Crop Sciences, Texas A&M University, USA
16:25	Discussion led by Damien Field
16:50	Adjourn
18:30	Dinner at the Memorial Student Center , Texas A&M University

Thursday 21 May 2015

Dimension: Codification

Facilitator – Alex. McBratney, The University of Sydney, Australia

8:25	Introduction - Alex. McBratney (co-organizer)
8:30	Agricultural Soil and Water Productivities: Tradeoffs and Policies – Theib Oweis , Director, Integrated Water & Land Management Program, International Center for Agricultural Research in the Dry Areas (ICARDA), Lebanon
8:55	The Place of Soil in International Government Policy – Robert Hill , Professor, United States Studies Centre at the University of Sydney, (formerly Chancellor, University of Adelaide; Senator for South Australia; Minister for Environment; Minister for Defence; Ambassador to the United Nations), Australia
9:20	Translating Soil Science Knowledge to Public Policy - Luca Montanarella , Program Leader Soil, Institute for Environment and Sustainability, Joint Research Centre, European Commission, Italy
9:45	How National Issues and Soil Security Link with Policy - Andrea Koch , Project Manager, Soil Carbon Initiative, United States Studies Centre at the University of Sydney, Australia
10:10	Break
10:30	Soil, Climate, and Policy – Mike Grundy , Research Director, Agriculture Flagship, Commonwealth Scientific & Industrial Research Organisation CSIRO, Australia
10:55	Discussion led by Alex. McBratney
11:15	U.S. Farm Programs and the Impacts on National and International Soil Security

	- Katina Hanson , Senior Policy Analyst, Farm Service Agency, Farm and Foreign Ag. Services, USDA, USA
11:35	U.S. Agricultural Strategies for Climate Resilience in a Changing Landscape - Carolyn Olson , Senior Scientist, Climate Change Program Office , Office of the Chief Economist, USDA, USA
11:45	Protection of the Soil Resource in the Brazilian Environmental Legislation – Tiago Broetto , PhD. Student, Soil Dept., Federal University of Rio Grande do Sul, Brazil
11:50	Creating Incentives for Improved Soil Health through the U.S. Federal Crop Insurance Program – Lara Bryant , Soil Health Fellow, Natural Resources Defense Council, USA
11:55	Securitisation – Alex. McBratney , Professor of Soil Science, Faculty of Agriculture and Environment, The University of Sydney, Australia
12:00	Discussion led by Alex. McBratney
12:20	Lunch
<i>Dimension: Connectivity</i>	
Facilitator – Andrea Koch, United States Studies Centre, Australia	
13:15	Introduction - Andrea Koch (co-organizer)
13:20	Soil Renaissance and the Connection to Land Managers – William Buckner , President & Chief Executive Officer, The Samuel Roberts Noble Foundation, USA
13:50	How to Enumerate Soil Capability Regarding Human Health: Examples and Ideas – Jae Yang , Professor of Soil Environmental Chemistry, Dept. of Biological Environment, Kangwon National University, Republic of Korea
14:20	Whose “Security” is Important? Communicating Risk about Soil to a Diverse Population – Ronald G. Amundso , Professor, Environmental Science and Policy Management, University of California Berkley, USA
14:30	Securing Our Soil Data, Information and Knowledge: The Key to Soil Security – Peter Wilson , Manager National Soil Information, Land and Water Flagship, CSIRO, Australia
14:50	Discussion led by Andrea Koch
15:10	Break
15:30	Restoration of Grassland Ecosystem Function and Socio-Ecological Resilience – Richard Teague , Associate Resident Director and Professor, Texas A&M AgriLife Research, USA
15:40	Soil Aesthetics – an Undervalued Dimension of Soil Security? – Richard MacEwan , Senior Scientist, Victorian Dept. of Environment, Land, Water & Planning, Australia
15:50	Soil-Water-Food Nexus: A Public Policy Perspective – Kent Portney , Professor, George Bush School of Government and Public Service, Texas A&M University, USA
16:00	The Sixth Dimension of Soil Security: Ideas from Integral Ecology – Christopher Clingensmith , Lab Manager of Pedometrics, Landscape Analysis & GIS Laboratory, Soil and Water Science Dept., University of Florida

16:10	Applying the Meta Soil Model: The Connections Between Soil and Water Security in a Permanent Protection Area in Brazil –Marcos Bacis Ceddia Sr. , Soil Department, Agronomy Institute, Federal Rural University of Rio de Janeiro, Brazil
16:15	The Role of Master Gardeners in Providing Soil Knowledge for Gardening to the Public – Josephine Levtevidal , Master Gardner, University of South Florida, USA
16:20	Discussion led by Andrea Koch
	<i>Wrap-Up</i>
	Facilitator – Mike Grundy, CSIRO, Australia
16:30	Develop key points for a communiqué from Symposium
17:30	Symposium Concludes - Cristine Morgan , Texas A&M University, USA