



Rattan Lal named UN Global Dryland Champion



Luc Gnacadja of Benin, the United Nations Convention to Combat Desertification’s executive secretary, congratulates C-MASC’s Rattan Lal, who was nominated as one of the first Global Dryland Champions. The honor, recognizes “those who have made outstanding contributions to our efforts for achieving a land-degradation-neutral world.”

Read more at...

<http://sustainability.cfaes.ohio-state.edu/uncategorized/cfaess-lal-world-expert-on-sustainable-land-management-named-un-global-dryland-champion/>

Issue 3:2013



Director Prof. Maurice Maloney presents Dr. Rattan Lal with the honorific title of Rothamsted Fellow on 7 October 2013. Dr. Lal also presented a seminar at Rothamsted entitled “Food Security and Climate Change”. Click here for more details...

<http://cfaes.osu.edu/faculty-staff-resources/cfaes-monthly/archives/november-2013/senrs-rattan-lal-named-rothamsted>

Visit of Dr. Diana Wall



Dr. Barry Lyons (right) and Dr. Rattan Lal (left) meet with Diana Wall, 2013 Tyler Prize Laureate, University Distinguished Professor, and professor of biology at Colorado State University and director of the School of Global Environmental Sustainability, on September 26, 2013.



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Congratulations to our recent graduates!



Nick Stanich
M.Sc The Ohio State University
Summer 2013



Ryan Hottle
Ph.D, The Ohio State University
Summer 2013



Josh Beniston
Ph.D, The Ohio State University
Fall 2013

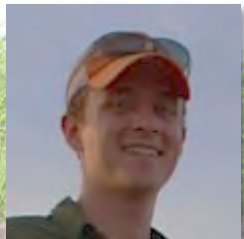
Meet our new graduate students!



Kyle Baldosser
M.Sc student
GTA - ENR 3700
B.S. – Ohio University



Nall Moonilall
M.Sc student
GTA - ENR 3001
B.S. – Florida Internat. University
Miami, FL



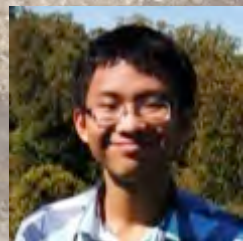
Pat Bell
Ph.D student
GTA - ENR 3000
M.Sc, M. Ag., & B.S. – Oklahoma State University, Stillwater, OK



Claire Sutton
M.Sc student
GTA - ENR 3700
B.S. – The Ohio State University
Columbus, OH



Chris Eidson
M.Sc student
GRA – USDA/CS-CAP Project
B.S. – The Ohio State University
Columbus, OH



Yiming Zhao
M.Sc student
GAA with ESGP
B.Ph–Zhejiang University
Hangzhou, China



Welcome to our new Visiting Scholars!



Asma Hassan
Visiting Scholar – Pakistan
Ph.D Student
PMAS Arid Agricultural University
Rawalpindi, Pakistan
August 2013 – January 2014



Dr. Sudhir Verma
Visiting Scholar – India
Assistant Professor
Dr. Y.S. Parmar University of
Horticulture & Forestry
Nauni, Solan, India
August 2013 – August 2014



Dr. Debashis Mandal
Visiting Scholar – India
Senior Scientist
Central Soil & Water Conservation
Research & Training Institute,
Dehradun, Uttarakhand
September 2013 – December 2013



Dr. M.S Venkatesh
Visiting Scholar – India
Principal Scientist, Soil Science
Division of Crop Production
Indian Institute of Pulses Research
Kalyanpur, Kanpur, India
September 2013 – December 2013



Dr. Anup Das
Visiting Scholar – India
Senior Scientist, Agronomy
Division of Natural Resource
Management
ICAR Research Complex For
NEH Region
Umiam, Meghalaya, India
October 2013 – January 2014



Dr. Subir Kumar Nag
Visiting Scholar – India
Principal Scientist
Fishery Resource & Environmental
Management Division
Central Inland Fisheries Research
Institute
Barrackpore Kolkata-700 120
West Bengal, India
October 2013 – January 2014



Dr. Gurmeet Singh Dheri
Visiting Scholar – India
Assistant Soil Chemist
Department of Soil Science
Punjab Agricultural University,
Ludhiana, Punjab
November 2013 – April 2014



Lal Bahadur Shastri Outstanding Young Scientist Award 2012

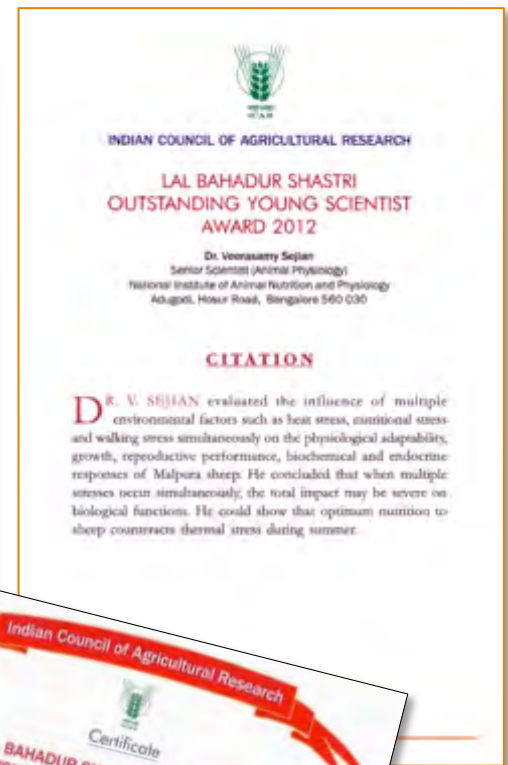


Indian Council Of Agricultural Research

An alumni of C-MASC's Visiting Scholar program, Dr. Veerasamy Sejian, Senior Scientist (Animal Physiology), at the National Institute of Animal Nutrition and Physiology recently received a citation for the Lal Bahadur Shastri Outstanding Young Scientist Award for 2012. Dr. V. Sejian evaluated the influence of multiple environmental factors such as heat stress, nutritional stress and walking stress simultaneously on the physiological adaptability, growth, reproductive performance, biochemical and endocrine responses of Malpura sheep. He concluded that when multiple stresses occur simultaneously, the total impact may be severe on biological functions. He could show that optimum nutrition to sheep counteracts thermal stress during summer. Congratulations Dr. V. Sejian!



Dr. Veerasamy Sejian receives his Indian Council Of Agricultural Research Lal Bahadur Shastri Outstanding Young Scientist Award 2012 from Agriculture Minister Shri Sharad Pawar.





Exiting Scholar



Marla Alessandra de Araujo finished her research at C-MASC as a Visiting Scholar on July 17, 2013.

Marla Alessandra de Araujo

Federal University of Lavras

CAPES Foundation, Ministry of Education of Brazil

Soil Organic Carbon Retention in Southern Minas Gerais – Brazil: Parent Rock Effects

14 November 2012 – 22 July 2013

While Marla was at C-MASC, she performed the following analyses in Brazilian soils:

- Total carbon and nitrogen of the bulk soil and of the particle-size fractions (sand, silt and clay fractions).
- BET-N₂ specific surface area (SSA) of the bulk soil.
- Magnetic susceptibility of the bulk soil in a Bartington Magnetic Susceptibility Meter - Model MS2 (ASC Scientific, Carlsbad, CA) (Dearing, 1999).
- Fe, Al and Mn oxides in the bulk soil extracted by citrate-bicarbonate-dithionite (CBD) and ammonium oxalate.
- Soil micromorphology of thin sections (lapping, analyzing and taking pictures using a petrographic microscope).

She also performed the following activities:

- She attended weekly seminars of the research group.
- She presented the two seminars, both entitled “Soil organic carbon retention in southern Minas Gerais – Brazil: Parent rock effects”, for the weekly seminar and the Quarterly Review.
- She attended unofficially the classes “Soils and Climate Change” from January through April 2013.
- She successfully completed Environmental Health and Safety (EHS) online safety programs related to the laboratory Standard Operation Procedure (SOP).
- She wrote an abstract entitled “Mineralogy and magnetic susceptibility related to the BET-N₂ specific surface area of soils in Southern Minas Gerais, Brazil”, which was accepted to be presented in the XXXIV Brazilian Congress of Soil Science.

Marla is grateful for her time here at C-MASC and can be reached at

marlaalessandr@gmail.com





Exiting Scholar



Yanru Liang recently completed 2 years as a Visiting Scholar at The Ohio State University with C-MASC.



Yanru Liang

Northwest A&F University, China Scholarship Council
“Soil Carbon Sequestration and Erosion Restoration”
15 October 2011 - 15 October 2013

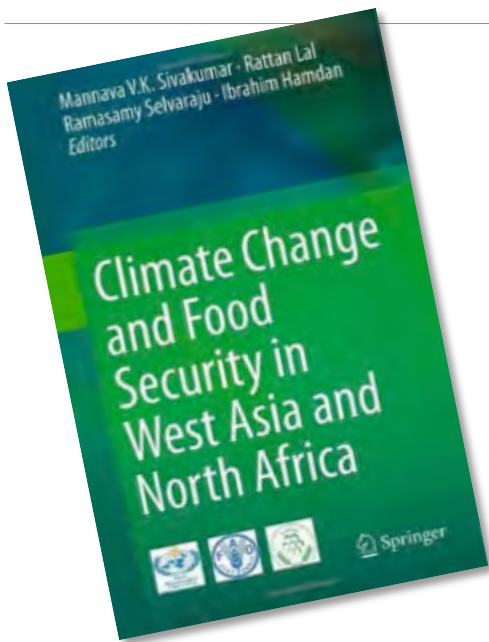
Yanru Liang was a Ph. D. student who studied soil science in the college of Natural Resources and Environment, Northwest A&F University, China, she was with C-MASC from October 2011 to October 2013 as a Visiting Scholar. She will return to China to get her Ph.D. degree.

Yanru Liang conducted her research under the advise of director Dr. Lal. She conducted her experiment at Waterman Farm on OSU’s campus. She collected soil air samples and monitored the greenhouse gas flux from the cropland during a complete growing season. She also gathered soil bulk samples, and tested the soil bulk density, soil water retention curve, soil hydraulic conductivity, and soil aggregates stability in the laboratory. Yanru also compiled the crop biomass and grain yield data during the crop harvest. With the help of Dr. Lal, she has written one manuscript based on the data she collected, and two more manuscripts will be finished soon.

Yanru Liang feels lucky to have had the opportunity to study at C-MASC. She learned a lot from Dr. Lal’s classes “Soil Physicals” and “Climate Change”. And was amazed at Dr. Lal’s work ethic! Yanru Liang was happy to meet the many scientists and scholars here, and she looks forward to collaborating with them in the future. She also hopes to have chance to visit C-MASC again. Yanru Liang can be always reached at liangyanru3@gmail.com



Yanru Liang and fellow Visiting Scholar Asma Hassan (Pakistan) in Zanesville at one of C-MASC’s research sites.



New Book Published

Climate Change and Food Security in West Asia and North Africa

Mannava V.K. Sivakumar, Rattan Lal, Ramasamy Selvaraju, Ibrahim Hamdan (Editors)

Hardcover: 500 pages

Publisher: Springer; 2013 edition (August 14, 2013)

Language: English

ISBN-10: 9400767501

ISBN-13: 978-9400767508

This book addresses the important issue of climate change and food security in West Asia and North Africa and presents perspectives from different sub-regions in WANA. The mitigation and adaptation options for different agro-economic sectors in WANA as well as policy, financial, institutional and cooperation issues are discussed. These could help in the development of new policies to better adapt agriculture production systems and enhance food security in WANA.

Climate Change, Sustainable Intensification and Food Security in Sub-Saharan Africa

13-15 November 2013

A group of OSU and C-MASC alumni who attended the conference at Sokoine University of Agriculture, Morogoro, Tanzania.





2013 Borlaug Dialogue Commentary by Dr. Lal



Below is a link to a commentary by Dr. Lal that is part of a series organized by The Chicago Council's Global Agricultural Development Initiative and the World Food Prize to examine the relationship between biotechnology, sustainability, and climate volatility in the lead up to this year's Borlaug Dialogue.

<http://globalfoodforthought.typepad.com/global-food-for-thought/2013/10/commentary-climate-resilient-agriculture-starts-with-soil-protection-1.html>



Graduate Students in Tanzania

This past summer four CFAES graduate students traveled to Morogoro, Tanzania, to conduct research with faculty and staff at the Sokoine University of Agriculture (SUA). Mr. Pat Bell and Miss Claire Sutton conducted research on management induced changes in soil quality.

Read more at...

<http://sustainability.cfaes.ohio-state.edu/on-the-farm/cfaes-grad-students-expand-their-horizons-in-tanzania/>

Global Soils Week Interview with Dr. Lal

Donors should compensate farmers for sustainable soil practices — scientist

“Donor agencies are often looking for miracles over short-term. They should change this way of thinking. Soil cannot show miracles over short time. It takes one rain storm to destroy soil, but years to restore it,” The Ohio State University’s professor Rattan Lal told Devex on the sidelines of the Global Soil Week held last week in Berlin, where former Finnish leader Tarja Halonen defended sustainable soil as the most cost-effective way to eradicate poverty.



Subsidizing agriculture in developing countries, he explained often leads to corruption and demoralizes farmers.

Development organizations and policy-makers should thus compensate farmers for their ecosystem services, including soil conservation and preventing deforestation, said Lal.

Read more at...

<https://www.devex.com/en/news/donors-should-compensate-farmers-for-sustainable/82237>



USDA CS-CAP Annual Meeting at Purdue



Attending the CS-CAP Annual meeting in Purdue. From left to right: Atanu Mukherjee (Post Doc), Vincent Obade (Post Doc), Dr. Rattan Lal (Director, C-MASC), Chris Eidson (M.Sc student, OSU), Toru Nakajima (Post Doc), and Guilherme Anghinoni (visitor, Brazil).

Dr. Lal's Presentations

Lal, R. Resilient Landscapes: Planning for Flood, Drought & Fire. 68th International Annual Conference. Reno, NV. 21-24 July 2013.



Lal, R. "Mitigating Climate Change and Achieving Food Security by Managing Soil". Agricultural Media Summit, Buffalo New York. 5 August 2013.



Lal, R. 2013. "Climate Change And Agriculture". Explorer's Club, Columbus Ohio. 17 August 2013.



Lal, R. 2013. "Food Security and Climate Change". Rothemstad, U.K. 7 October 2013.

Lal, R. 2013. "Soils and the Short-Term Global Carbon Cycle For Enhancing Ecosystem Services" 10 October 2013. Moldova.



Lal, R. 2013. "Beyond Sustainable Intensification" 4 November 2013. ASA/CSSA/SSSA International Annual Meetings - Tampa, FL.



Lal, R. 2013. "Sustainable Intensification To Address Climate Change and Advance Food Security In Africa" 13 November 2013. Tanzania.



2013 Farm Science Review September 17-19, 2013

FSR features on drone technology...

<http://cfaes.osu.edu/news/articles/farm-science-review-offer-farmers-first-time-view-unmanned-aircraft-system-for>

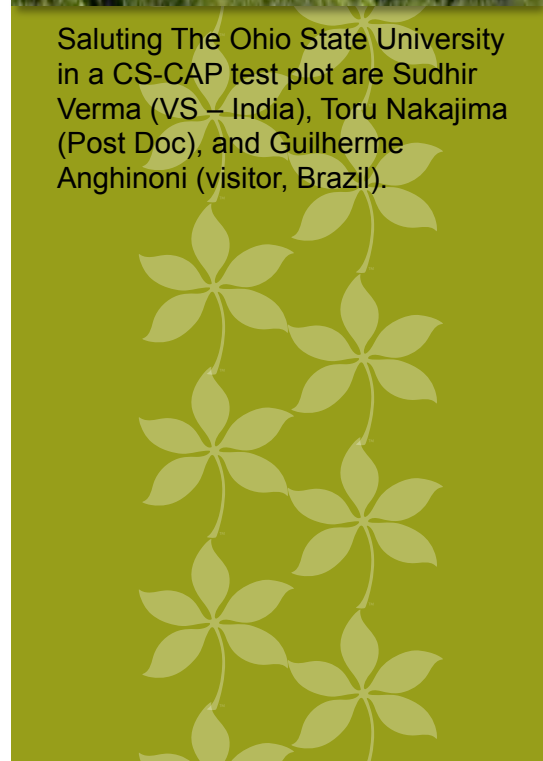


Some members of C-MASC visited the 2013 Farm Science Review in London, Ohio on September 19, 2013. From left to right, Yanru Liang (VS – China), Sudhir Verma (VS – India), Gerald Allen (Post Doc), Guilherme Anghinoni (Visitor – Brazil), Nall Moonilall (Masters student), Shiguo Jiang (Post Doc), and Asma Hassan (VS – Pakistan).

For more information on next year's Farm Science Review go to ... <http://fsr.osu.edu/>



Saluting The Ohio State University in a CS-CAP test plot are Sudhir Verma (VS – India), Toru Nakajima (Post Doc), and Guilherme Anghinoni (visitor, Brazil).



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