



SVENSKA SÄLLSKAPET FÖR ANTROPOLOGI OCH GEOGRAFI
invites to the 2020 VEGA SYMPOSIUM on

Soil and Civilization: Sustaining Farming for the Future

Date: Thursday 23 April 2020, 14:15–17:45
Venue: DeGeer-salen, Geovetenskapens hus, Stockholms universitet
(metro: Universitetet; bus stop: Universitetet norra)

The 2020 Vega Symposium honours David Montgomery, professor at University of Washington, recipient of SSAG's Vega Medal 2020, for his profound contributions to physical geography, especially within the field of geomorphology. The theme of the symposium will focus on soil. Soil is a defining characteristic of physical geography. It's presence, absence, and character helps shape landscapes around the world. And though soil is the foundation for both ecology and human civilizations, it remains one of humanity's least valued natural resources. Now with each passing year ongoing soil loss and degradation makes it that much harder to keep feeding a growing world. Rebuilding the health and productivity of the world's agricultural soils presents opportunities to forge a new relationship between people and the land. The Symposium will explore soil functions for sustainable productivity and for soil-mediated ecosystem services from agricultural landscapes such as soil bio-diversity, carbon sequestration, water cycling, clean water, and control of soil erosion and flooding. Building on this approach the global spread of Conservation Agriculture and other styles of regenerative farming could form the basis for a soil-health revolution to sustain farming well into the future and contribute to addressing climate change over the 21st Century.

Programme

14:15 *Opening of the Vega Symposium.*
Associate Professor Thomas Borén, President SSAG and Chair of the Symposium

14:20 Introduction. Professor Lennart Olsson, Lund University, Moderator

14:30 *Growing a Soil-Health Revolution.*
Professor David Montgomery, University of Washington, USA.

15:15 *Sequestration of carbon in soil for food and climate.* Professor Rattan Lal, Ohio State University, USA.

15:45 Coffee

16:15 *Realising the potential of soil biodiversity in shaping future sustainable food systems and mitigating climate change.* Professor Katarina Hedlund, Lund University, Sweden.

16:45 *Global adoption of Conservation Agriculture: Regenerating soil health.*
Professor Amir Kassam, University of Reading, UK.

17:15 Discussion

17:45 Closing of the Symposium

Most Welcome!

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Vega Symposium: Synopsis

Soil and Civilization: Sustaining Farming for the Future

Soil is a defining characteristic of physical geography. It's presence, absence, and character helps shape landscapes around the world. And though soil is the foundation for both ecology and human civilizations, it remains one of humanity's least valued natural resources. In hindsight, it is clear that the agriculture upon which humanity depends left legacies of degraded lands in regions around the world. Now with each passing year ongoing soil loss and degradation makes it that much harder to keep feeding a growing world.

Rebuilding the health and productivity of the world's agricultural soils presents opportunities to forge a new relationship between people and the land based on adapting how we farm to the landscape. It also provides opportunities to sequester carbon pulled from the atmosphere as increased soil carbon, decrease off-farm pollution, enhance on-farm biodiversity, and support rural economies.

This symposium will explore soil through linked interdisciplinary perspectives in physical geography, geology, soil science, agronomy, soil ecology/microbiology, climate change, and sustainability science. It will address questions such as: What is the role of soil biota and biology in rebuilding soil health? What farming practices can increase soil organic matter and regenerate soil fertility? How much can rebuilding soil organic matter help mitigating climate change? Advances in soil ecology have opened up new insights into microbial symbioses and point toward merging traditional ideas like cover crops, crop rotations and crop associations with new technologies that enable no-till farming and precision agriculture. The Symposium will explore soil functions for sustainable productivity and for soil-mediated ecosystem services from agricultural landscapes such as soil biodiversity, carbon sequestration, water cycling, clean water, nutrient retention, and control of soil erosion and flooding. Building on this approach the global spread of Conservation Agriculture and other styles of regenerative farming could form the basis for a soil-health revolution to sustain farming well into the future and contribute to addressing climate change over the 21st Century.