

Notes from the Director



Chancellor Robert Jones and Dr. Lynn Hassan Jones examining a fall armyworm trap managed by the Kalolo farmers group in Malawi.

Last week I had the privilege of traveling in South Africa and Malawi with Chancellor Robert Jones, Vice Provost Reitu Mabokela, and College of Education Associate Dean Chris Span. Among my many impressions from that trip is a very clear reaffirmation that there is strong global demand for the research,

teaching and public engagement conducted at the College of ACES. Food security, nutritional health, biodiversity, biofuels, and natural resource management were repeatedly raised as themes of importance in meetings with university administrators, government officials, and leaders from the private sector. I am optimistic that our extensive discussions will facilitate greater opportunities for our faculty and staff to address these critical themes in partnership with colleagues in South Africa.

The time in Malawi afforded the opportunity to see the impact of ACES' Soybean Innovation Lab (SIL) and the Strengthening Agricultural and Nutrition Extension (SANE) program. SANE has built the necessary capacity to make a decentralized extension system function effectively to give farmers a voice in policy making in the country while providing them with access to knowledge and technology that they need to achieve food security. High impact ACES work was also on display at the Lilongwe University of Agriculture and Natural Resources (LUANAR) where SIL is working with partners to improve human nutrition by developing soy-based feeds for aquaculture projects and by creating soy milk products including yogurt and tofu for local consumption. ACES is also playing a central role in the Pan African Field Trails project through which the Chitedze Agricultural Research Station is now testing 36 varieties of soy with the intention of dramatically increasing the varietal options available to Malawi's smallholder farmers. These and other activities exist only because of the great work of ACES faculty and staff. - Alex Winter-Nelson, Director, ACES Office of International Programs

ACES hosts international perspectives seminar for Illinois Agricultural Leadership Program

Twenty-nine emerging leaders in Illinois agriculture visited the University of Illinois College of Agricultural, Consumer and Environmental Sciences (ACES) on February 8-9, 2018, to gain an international perspective on agricultural policies and regulations as part of the Illinois Agricultural Leadership Program (IALP).

The ACES Office of International Programs (OIP) coordinated a diverse and knowledgeable line-up of speakers for the attendees, who are members of the IA:P Class of 2018. The two-day program focused on the culture, economy, agriculture, and political issues in Hong Kong, Vietnam, and Taiwan, where the group will travel as part of their curriculum.

ACES International hosts seminar on funding opportunities with French institutions

To facilitate partnerships with French institutions, the ACES Office of International Programs hosted the Attaché for Science and Technology Consulate General of France Tatiana Vallaeys on February 12. She presented a seminar to faculty and staff who are interested in funding opportunities for collaborations with French institutions.

"My job is to promote contacts between researchers in the Midwest and your peers and potential collaborators in France," explained Dr. Vallaeys who is currently on sabbatical from her professorship at the University of Marseille to work in this position. She listed her two major aims in speaking to Illinois scientists as:

- 1) Reconnecting them with [INRA](#), the world's second largest agricultural research center. "We have a long history that has fallen off, but now we need to see where we can reconnect," she said. She worked at INRA for 15 years.
- 2) Finding potential collaborators for [Pasteur Institute](#) where she also worked for several years.

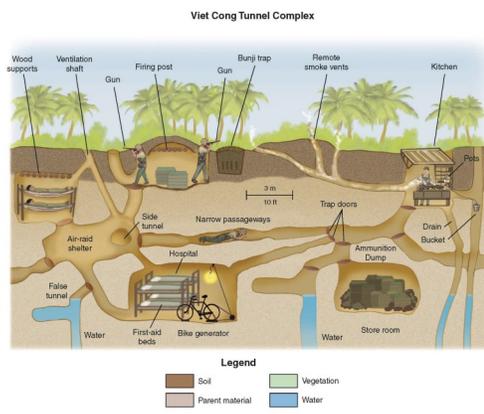
Farming crops with rocks to reduce CO2 and improve global food security

Farming crops with crushed rocks could help to improve global food security and capture CO2 from the atmosphere, a new study has found. The pioneering research by scientists at the University of Illinois, together with U.S. and international colleagues, suggests that adding fast-reacting silicate rocks to croplands could capture CO2 and give increased protection from pests and diseases while restoring soil structure and fertility.

The research, published in *Nature Plants*, examined amending soils with abundant crushed silicate rocks, like basalt, left over from ancient volcanic eruptions. As these minute rock grains dissolve chemically in soils, they take up carbon dioxide and release plant-essential nutrients. Dr. Stephen Long, Gutzwiller Endowed Professor of Crop Sciences and Plant Biology at U of I is a co-author of the study.

Retired Illinois soil scientist digs up information about Vietnam War tunnels

To satisfy decades of curiosity about the resiliency of the Viet Cong's underground tunnels, an emeritus soil science professor from the University of Illinois traveled to Cu Chi, Vietnam, to crawl through the restored tunnels. His resulting publication on the wartime tunnels and their soils is attracting significant attention from U.S. veterans groups, military historians, and Vietnam War archivists.



“These hundreds of miles of soil tunnels changed the outcome of the Vietnam War. Over time they grew from temporary quarters for a few soldiers to encompass underground villages of soldiers with kitchens, living quarters, and hospitals. Some tunnels even had large theaters and music halls to provide the soldiers with entertainment. Bombing and search-and-destroy missions from 1966 to 1968 were not able to eliminate these tunnels, and thus the Viet Cong were later able to invade Saigon,” recaps Kenneth Olson, who is retired from the Department of Natural Resources and Environmental Sciences and a Vietnam-era veteran who served in the U.S. Army from 1969 to 1973.

The [article](#) by Olson and co-author Lois Wright Morton, “Why were the soil tunnels of Cu Chi and Iron Triangle in Vietnam so resilient?” is available from *Open Journal of Soil Science*.

Soybean Innovation Lab's breeding program sees landmark success

Soybean Innovation Lab (SIL) researchers traveled to Ghana, Rwanda, and Malawi in late 2017 to visit with collaborators on joint research efforts focused on improving soybean plant breeding, germplasm quality, and seed systems.



ACES and Soybean Innovation Lab (SIL) researcher Dr. Brian Diers (second from right) meets with SIL collaborators on-site in Ghana.

In Ghana, Dr. Brian Diers, professor in the Department of Crop Sciences, met with breeders at Savanna Agricultural Research Institute (SARI). Diers and Dr. Randy Nelson, also a professor in the Department of Crop Sciences, have been working with SARI for years to improve Ghana's national soybean breeding program.

On this most recent visit the team saw progress on the construction of a seed-processing lab and the completion of an irrigation system. Both the lab and irrigation system are essential to a well-functioning and modern breeding program. The team also learned more about the new variety soon to be released by SARI.

The Feed the Future Innovation Lab for Soybean Value Chain Research (Soybean Innovation Lab, SIL) is based at the University of Illinois.

Two ACES students chosen to participate in Next Generation Delegation

The Chicago Council on Global Affairs has selected two students from the University of Illinois College of ACES as part of the prestigious Next Generation Delegation: Emely Lopez Barrera (PhD candidate in Food Science and Human Nutrition) and Xavier Morgan (undergrad in Ag Communications).

For more news items on international activities in the College of ACES, visit <http://intlprograms.aces.edu>. To receive an electronic version of this newsletter, visit <http://illinois.edu/gm/subscribe/7045>