Science Societies

Know your community: Agronomic solutions for smallholders

By Stella Salvo

May 22, 2020





Left: Ray Weil teaching village farmers and extension agents how to use a pocket pH meter with bottled drinking water to mix with soil. Right: Village kids getting GPS readings for soil fertility study in Rwanda. Photos by Ray R. Weil.

An overwhelming number of people globally are affected by hunger. Roughly 821 million people are undernourished, most of which are also food insecure (Guterres, 2019). Improved productivity for smallholder farmers needs to increase to help meet this

need but not at the cost of environmental degradation. The Agronomic Solutions for Smallholders Community of ASA works to improve productivity locally, support ecosystem services, and engage the tribal knowledge of local communities to improve agronomic practices. This community is focused on resilience as a solution to food security. The 638 members of this community are leaders in research efforts that are part of the solution such as conservation agriculture, no-till farming systems, and crop rotations (Tully et al., **2015**). However, they also recognize that there is no one-size-fits-all solution. Best management practices need to be tailor fit to specific smallholder farming systems.

The community was initiated in 2010 and is focused on integrated development for smallholder farmers across the globe. As part of the Global Agronomy section, community members have shared a hands-on approach towards knowledge transfer with a strong cultural lens to cater solutions to local growers—from basic applied tools to cutting-edge technologies. The community recognizes the need to share recommendations paired with field interviews as part of field diagnosis and problem solving.

At this year's Annual Meeting, which has the theme “Translating Visionary Science to Practice,” the community is hosting a topical session on “New Innovations in Applied Research that Enhance Agronomic Solutions for Smallholder Farmers.” The session is co-sponsored by CSSA Division C08–Plant Genetic Resources, ASA Community Agronomy in Africa, and the cross-Society Specialty Group Agricultural Scientists for Africa. This session will look across cross-functional areas in crop improvement that have high impact and balance towards environmental and cultural preservation and sustainability. The community hopes to create dialogue and transparency around new solutions and insights that can reach the most challenging agronomic landscapes to meet the food security needs on the local level. Consider submitting your abstract by

9 June 2020 to take part in this session and join us for shared learning and dialogue.

References

- Guterres, A. (2019). Sustainable development goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture. Retrieved from **https://sustainabledevelopment.un.org/sdg2**

  Google Scholar
- Tully, K., Sullivan, C., Weil, R., & Sanchez, P. (2015). The state of soil degradation in Sub-Saharan Africa: Baselines, trajectories, and solutions. *Sustainability*, **7**, 6523–6552.

  CASWeb of Science®Google Scholar

More news & perspectives

Back to issue

Back to home

Text © . The authors. CC BY-NC-ND 4.0. Except where otherwise noted, images are subject to copyright. Any reuse without express permission from the copyright owner is prohibited.