

Reflections: "Open Code" Sharing of Knowledge and Innovations

by Sharon B. Megdal August 22, 2025

In early August, I traveled to Buenos Aires, Argentina for the annual Congress of Aapresid, a large network committed to sustainable agricultural systems. **The English version of the website** explains that Aapresid promotes "the no-tillage system based on ZERO TILLAGE as a basic practice, but which must necessarily be accompanied by other practices to evolve from simplified systems to complex systems, and thus manage to promote systems that emulate natural ecosystems."

This year, the large gathering of producers, along a broad spectrum of agricultural industry representatives from the public and private sectors and academia, focused on the concept of "Open Code." **They explain**:

"We are writing the dialog with the future. Each idea, each advance, each conversation occurring at the Aapresid Congress is a line of code in a collective program, which not only solves the problems of today but also foresees the challenges of tomorrow. We live in a world of continuous change. To face such transformation, we realized that it is not enough with just adapt—we need to create. Create new syntaxes, new connections, new answers; because knowledge expands when it is shared, and multiplies when combined.

"The XXXIII Aapresid Congress opens the doors to innovation. Here, the limits become blurred, and specializations blend together. Each farmer, technician, and visionary involved not only provides questions or answers but also pieces that fit within a bigger system. We are more than witnesses of change; we are the programmers of the future. Every year, the Congress collects and updates, in a single body, the knowledge of a community that makes innovation its lifestyle. It is not only about improving what already exists, but also about consistently imagining and redesigning in order to accompany transformations in the world. Because the future cannot be predicted—it is programmed. And the code we write together is open to everybody. This is the Aapresid Congress. This is the place where knowledge is released, solutions are linked, and ideas are transformed into realities."

The participants with whom I interacted, regardless of country of origin (and there were many international participants), revealed strong commitment, passion, and openness to sharing their knowledge and learning.

The opening morning's session, "Building a new narrative: The future of agriculture and agri-food systems in the Americas," focused on involving the public in creating the desired future through innovation and dialogue. Speakers emphasized the importance of food production and security and the need for broad involvement in charting our future. Innovation and collaboration were featured by multiple panel speakers. In his remarks about Argentine experiences and perspectives, Aapresid President Marcelo Torres highlighted multiple parallels between the Argentine experience and that of the Southwestern United States. His remarks referred to challenging context, need for scale, and erratic climate. He noted that agriculture is often seen by society as the problem rather than part of the solution and that young people do not want to farm. Farmers need to innovate and change, something that often involves trial and error. And he noted that farmers often resist change. Connecting to the open code concept, Torres advised farmers to share openly with other farmers, pointing to the benefits of an interactive model, one that includes consumers and society, along with broad networks. He commented that no-till farming was something that farmers had to learn, often out of necessity, and how farmers worked with machinery manufacturers to assist them with making the transition. He spoke about early adopters, innovators, and networking. His optimistic viewpoints carried over into a discussion I had with him and another Aapresid Board Member, Paola Diaz, over breakfast later during my visit. Both were very interested in the information shared in the two sessions focused on Arizona. I hope they can visit us!

The conference organizers reached out to me due to their interest in learning about agriculture, soils, and water in the Southwestern United States. Parts of Argentina rely on groundwater and some areas are semi-arid. They offered me two opportunities to contribute to the conference program. First, I had the pleasure of moderating and providing background for the panel "No-Till Farming in Semi-arid Areas," which featured, via Zoom, Arizona farmer Ron Rayner and University of Arizona Soil Health Extension Specialist Debankur Sanyal. I opened the session with introductory information on water sources and uses in Arizona and Arizona's different agricultural zones. Rayner, who connected presciently to Marcelo Torres' remarks by titling his presentation, "Trial and Error: Conservation tillage agriculture in Arizona," noted how his no-till or low-till and crop rotational practices have been beneficial in terms of water inputs and farm outputs. Sanyal, in his presentation "Managing Soil Health in Semi-arid Environments," spoke about challenges associated with no-till agriculture in semi-arid environments and pointed to conservation tillage and avoidance of tillage through growing perennial crops as alternatives. The room was full, demonstrating the interest in hearing about farming in Arizona's semi-arid areas.

My second contribution was titled "How water supply challenges are impacting agriculture in Arizona, USA." In this longer presentation, I was able to provide detailed information on Arizona's different agricultural zones and

much more. I explained that water supply-demand imbalances, including in the Colorado River Basin, are leading to changes in agricultural irrigation and cropping practices and that innovation and collaboration are key to agriculture's future. As I often do, I pointed to the importance of the legal system and society's values, which are reflected in policies. I ended my talk with reference to the factors that contribute to the innovation and collaboration necessary for successful adaptation to changing circumstances. That this longer presentation was covered by the news outlet **La Nacion** indicates broad interest in our region.

My conference experience underscored the value of sharing practices and lessons learned, both positive and negative, along with the benefits of eating with existing and potential/new partners. I am hopeful that the connections made will lead to further sharing and interactions.



Sharon B. Megdal on University of Buenos Aires Agronomy Campus. Image: Maia Migdalek

I conclude this essay on a personal note. While in Buenos Aires, I met cousins for the first time. In addition to the rich, professional interactions I had, I am grateful for the opportunity to meet and eat with relatives and enjoy their hospitality. I even visited the Agronomy campus of the University of Buenos Aires, where a combined farmer's market and crafts fair is hosted once a month!

Presentation Links (PDF): Megdal 1 / Rayner / Sanyal / Megdal 2





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