



*supporting the ethical development and stewardship
of the genetic resources of agricultural seed*

STATE OF ORGANIC SEED REPORT

Advancing the Viability and Integrity of Organic Seed Systems



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Executive Summary

State of Organic Seed (SOS) is an ongoing project to monitor the status of organic seed systems in the United States. The project aims to develop diverse stakeholder involvement in implementing policy, research, education, and market-driven activities that result in the improved quality, integrity, and use of organic seed. Organic Seed Alliance (OSA), a national non-profit organization committed to the ethical development and stewardship of the genetic resources of agricultural seed, facilitates the project with the belief that developing and protecting organic seed systems is a top priority for organic food and farming.

This report is the first comprehensive analysis of the challenges and opportunities in building the organic seed sector. A planning team of farmers, non-governmental organizations (NGOs), certifiers, and food industry and seed industry representatives directed project activities. To collect information from a broad and diverse group of stakeholders, OSA and its partners conducted a series of surveys with farmers in 45 states, and gathered questionnaires from researchers, certifiers, food and seed industry representatives, and farm and food policy experts. OSA also hosted a full-day SOS Symposium to discuss data and prioritize next steps.

Why is the State of Organic Seed project important?

The USDA's National Organic Program (NOP) standards require the use of organically produced seed. Yet, even with the organic industry's impressive growth, the organic seed sector has not caught up to meet this demand. There is a limited availability of appropriate organically produced seed for a variety of reasons, including cutbacks in public plant breeding programs, lack of investments from the private sector, seed industry consolidation, and ongoing disagreement regarding implementing NOP requirements pertaining to organic seed, among others.

The lack of organically bred and produced seed is a barrier to the growth and ongoing success of organic farming. Seed is the critical first link in organic production, and provides farmers with the genetic tools to confront day-to-day challenges in the field. Organic systems have different challenges than conventional counterparts and have fewer spray-on solutions. Further investments in organic plant breeding will yield adapted genetics suitable to a range of pest and disease pressures, growing seasons, and flavor and nutrition needs. Organic seed that is appropriate for regional agronomic challenges, market needs, regulations, and the social and ecological values of organic agriculture is therefore fundamental to the success of organic farmers and the food system they supply.

As we work to build organic seed systems, other challenges must simultaneously be addressed. In crops for which there are genetically engineered (GE) counterparts (i.e., alfalfa, canola, corn,

cotton, soybeans, and sugar beets), organic seed increasingly contains detectable levels of GE material, a technology that is explicitly excluded in NOP regulations and rejected by the organic industry and consumers alike. The lack of federal protection for organic markets from GE contamination poses a serious risk to the credibility, viability, and success of organic farmers and the NOP.

Concentration in the seed industry is another challenge. The seed industry has consolidated quickly, concentrating the ownership of seed resources through corporate acquisitions and mergers and the restrictive use of utility patents. In addition to placing constraints on germplasm, this consolidation has decreased the number of regional seed and genetics firms with the potential to serve organic markets. Alternative intellectual property models that enhance innovation while protecting investments must be explored.

Key findings: Organic seed systems are improving but require increased attention and resources

SOS data shows that organic seed systems are developing. Farmers report increased attempts to source organic seed and more pressure from certifiers to do so. Research in organic plant breeding has increased slightly, with investments from both the public and private sector.

Still, challenges and needs loom large for expanding organic seed systems. While this project captured an array of priorities that varied by crop, region, and perspective of different professional sectors, overarching priorities are clear, including the need to:

- Develop seed systems that are responsive to the diverse needs of organic farmers through increased public-private collaboration.
- Refine understanding of organic plant breeding principles and practices.
- Engage the National Organic Program in policy initiatives that move organic seed forward.
- Reinvigorate public plant breeding with an emphasis on the development of cultivars that fit the social, agronomic, environmental, and market needs of organics.
- Protect organic seed systems from threats of concentrated ownership of plant genetics.
- Protect organic seed systems from threats of contamination from genetically engineered traits.
- Improve sharing of information in the areas of organic seed availability, lack of availability for specific varieties and/or traits, and field trial data.

- Create opportunities for organic farmers to work with professional breeders through trialing networks and on-farm plant breeding to speed the development of regionally adapted organic cultivars.

An important outcome of SOS is a general agreement from stakeholders that the challenges and opportunities to building organic seed systems are interwoven and demand comprehensive, collaborative approaches. Few priorities can move forward independently. The project has clarified the need for feedback loops to increase this collaboration within the organic community. As such, ongoing working groups will carry out the action items outlined in this report. Regional listening sessions and other follow-up meetings will move forward this discussion and work even further.