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The Seeds of Restoration: New Effort Launches at NAC24 to Address Shortage of Local Ecotype Seed in Kansas and Missouri

Anna Funk, Ampliflora

Restoring and reconstructing native landscapes is hard enough when resources are limited (they always are) and invasive species won't give it a rest (they never do). But one of the more underappreciated challenges of ecological restoration is the limited supply of local ecotype seeds available to land stewards in their locale or even region. Whether driven by practicality—the proven resilience of locally sourced seeds—or by a sense of stewardship for the plants that have adapted to their lands over millennia, land stewards agree: Local ecotype seeds are always the preferred choice over those sourced from afar. For some, it's not even a preference: If seeds aren't local, they're not getting sowed at all.

But there simply isn't enough local ecotype seed available to keep the drills seeding at all the parks, nonprofits, and agencies stewarding native lands. It's a widespread problem, and one that's been increasingly top of mind for many groups across eastern Kansas and western Missouri. During a roundtable discussion at the Natural Areas Association's annual conference on October 8 in Manhattan, Kansas, experts from conservation organizations, parks departments, and ecological nonprofits in the region convened to discuss how to overcome barriers to using local ecotype seed in their projects, share success stories, and explore steps forward.

"We're all doing amazing work, and everybody seems to be growing," said Matt Garrett, natural resource manager for Johnson County Park District (Kansas). "I thought [the conference] would be an awesome opportunity to get everybody together and have this conversation about the future and what could happen in 2025 and moving forward."

The Seed System: Limited Supply, Growing Demand

Everybody wants more local ecotype seed. But across the board, limited internal capacity and external supply create significant barriers. Many groups are hand collecting from local remnants or restorations, typically aided by teams of volunteers, while seed producer businesses rely more on flail-vacs or other mechanized means of seed collection. But the sheer amount of seed needed to sow hundreds and hundreds of acres quickly outpaces this hand-picked supply. Nearly everyone at the table said: I want to buy more seed. I know which species I want. There's nowhere to buy it.

Despite the shortage, organizations across the region are doing incredible work with what they have, including building infrastructure for native seed collection, cleaning, storage, and even sharing. For instance, Native Lands Restoration Collaborative, which predominantly serves northeastern Kansas, employs a community-driven approach, engaging local volunteers in seed collection and land stewardship. They use their "seed vault" to store and distribute seed for publicly accessible or community beneficial projects.

Twenty-five miles southeast, the Johnson County Parks seed barn is equipped with a hammer mill, fanning mill, screens, and other seed processing equipment. The facility has already been used by groups like Kansas City WildLands and Native Lands Restoration Collaborative, and Garrett invites others in the restoration community to utilize the resource.

Across the state line, Kansas City Wildlands' seed team regularly collects, processes, and distributes seed from WildLands properties across the greater KC area. And further into Missouri, the Missouri Prairie Foundation holds contracts with seed vendors who collect seed at a number of their prairie remnants, paying for access either in cash or in seed. Across the region, the story seems to be the same: What they're doing now is working, but if more local ecotype seed were available, they'd use it.

Sustaining a Seed Supply Chain

In order to scale up the supply of local ecotype seed, efforts need to move beyond wild collection and into actual production. But the would-be native seed supply chain faces many hurdles, including high upstart costs for local production, lack of policy incentives, and high costs to producers. Even "local" seed companies are often selling seeds produced elsewhere. Rob Cook, Director of Business Development at Texas-based Bamert Seed, emphasized that from a production standpoint, growing local accessions can be significantly more expensive than using established varietals.

One potential model for building a local seed supply chain is a "contributing partner" model used by the Institute for Applied Ecology in Oregon, which Alexis Larsen, Plant Materials Program Director at IAE's Northwest Office, explained to the group. Some agencies gave funding upfront, and over time, they were paid back that value in seeds, while others contributed by purchasing seed. That said, funding at government agencies may ebb and flow, especially with election cycles, adding additional uncertainty when it comes to the sustainability of agency support for the endeavor.

This and other models require significant coordination to bring together would-be producers and buyers—conversations that likely wouldn't happen without an organized mechanism in place. The facilitation of those conversations could provide a major step forward, but the question remains of who is able to take on the responsibility (and provide the resources) to coordinate such an effort.

Moving Forward: A Regional Plan to Expand Local Seed Access

Participants at the NAC24 roundtable agreed on the need to create a formal working group or seed alliance to coordinate efforts across agencies and conservation groups moving forward. Sharing resources like seed barns and equipment, and possibly even rotating volunteer seed collection teams, were among the ideas discussed to maximize local capacity under current systems.

But they're also thinking big, for instance considering the ways that existing government cost-share programs and other conservation initiatives could be modified and adapted to include seed production as a viable conservation practice. Programs from the NRCS or the Kansas Alliance for Wetlands and Streams already fund buffer strips and other ecological improvements, so adding the option to use those spaces for seed production could make a significant impact.

Likewise, state-level biologists could influence federal costshare programs like CRP to include a greater diversity of native plants—something that's already seen success in Missouri, said Carol Davit, executive director of the Missouri Prairie Foundation. This type of state-level customization of federal programs could encourage more types of plants to be grown across the region while also providing seed vendors incentives to provide a reliable supply of regionally adapted seeds for restoration projects.

Education and outreach to the farming community—potential growers of native seed—were also identified as possible paths forward. "If we can tell farmers that we have guaranteed clients ready to buy seed, and make those connections, then it's less risky," said Courtney Masterson, executive director and ecologist for Native Lands. "We still have to get through that first three or four years of almost no production, and that's where the cost-share incentive needs to concentrate."

A Call to Action for the Kansas–Missouri Native Plant Community

The session closed with a shared vision for a sustainable, regionally adapted seed supply capable of supporting the community's long-term restoration needs. By uniting efforts across the region, this conservation community hopes to ensure that the restoration of prairies, woodlands, and wetlands is not only ecologically successful but also rooted in the area's unique local ecotype.

The conversation also underscored the value, and continuing need, for the protection of high quality remnant natural areas that provide the source of priceless local ecotype seed.

"There's a lot of know-how, and there's a lot of funding, but they're not overlapping," noted Masterson, underscoring the need for a united effort to align resources with on-the-ground restoration needs. By forming a dedicated working group, participants hope to address this gap, bringing local partners together in ways that maximize each organization's contributions

If you're in eastern Kansas or western Missouri and would like to get involved in this working group, please reach out to Sara Beier at sarah.beier@bridgingthegap.org