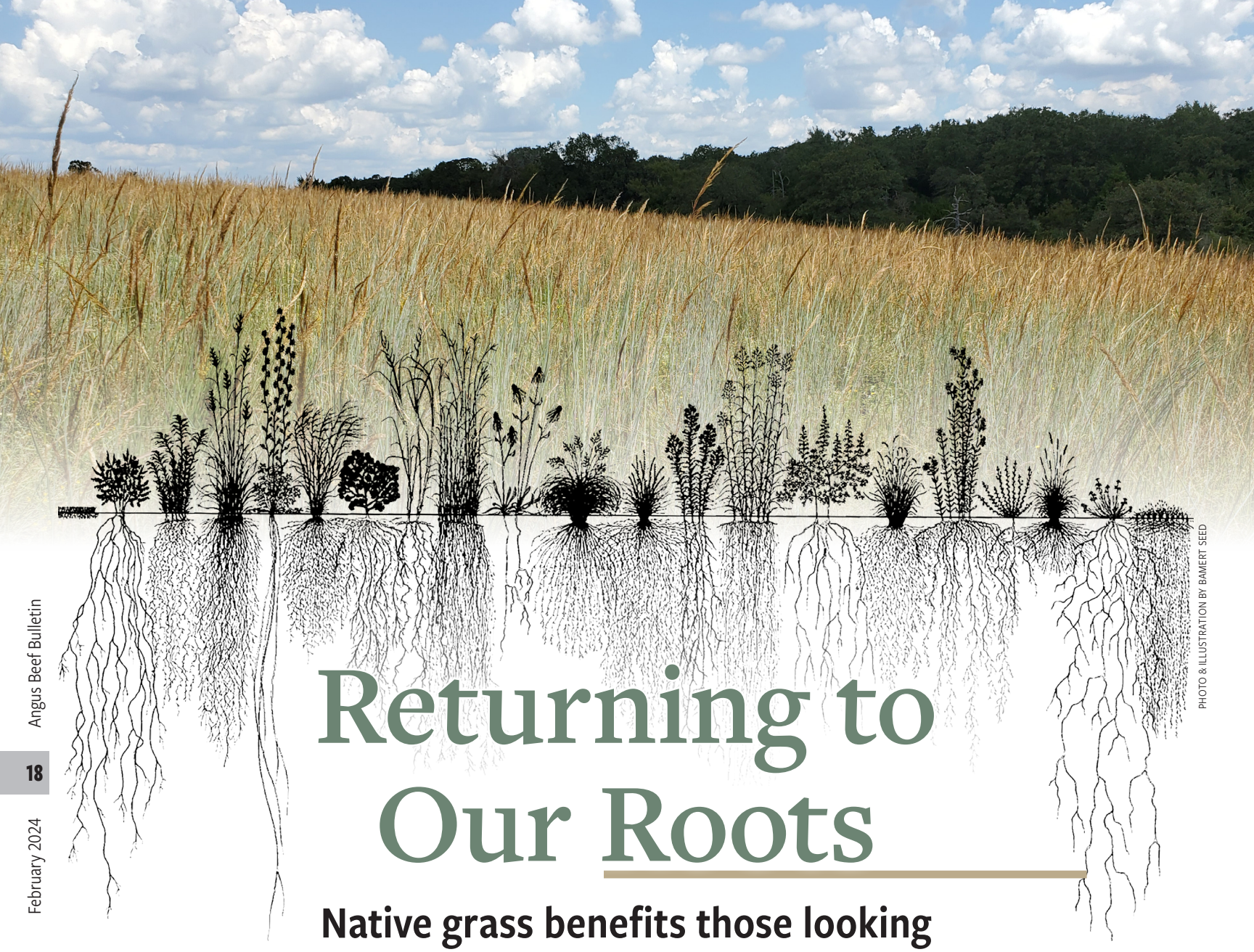

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Returning to Our Roots

Native grass benefits those looking to increase biodiversity.

by Lynsey McAnally, associate editor

Novelist Wendell Berry once said, "We have neglected the truth that a good farmer is a craftsman of the highest order, a kind of artist." While few would disagree with his assertion, the artistry might sometimes reside within our ability to look at the world around us and appreciate nature's talent for adaptability.

Non-native introduced grasses have been widely planted throughout the Great Plains to increase available forage and control soil erosion. Pastures planted to introduced grasses typically are monocultures — an area populated primarily by a single variety of plant life — which offers limited value to wildlife species, and can often outcompete native grasses for resources.

On the other hand, native grasses have been adapting to their traditional ranges for thousands of years and can offer benefits to cattlemen when managed carefully.

"One of the biggest benefits of natives is that — if we choose the correct species and varieties of those natives — they're adapted to the area and are able to be productive without inputs that you might see in an introduced monoculture," says Rob Cook, director of business development with native-plant-focused seed provider Bamert Seed. "In a monoculture, all the roots look the same, and they're demanding water and nutrients from the same part of the soil profile at the same time of the year; while well-managed and diverse native plants are demanding resources from different parts of that soil profile at different times of the year."

Importance of biodiversity

A good portion of Cook's consulting career was spent in areas with Bermuda

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grass pastures. He witnessed producers intensively managing and supplementing pastures to get 8,000 pounds (lb.) of forage production per acre. Cook always wondered why, when in a tallgrass prairie a producer could get the same 8,000 lb. of forage production per acre without applying additional inputs.

The reason? Plant biodiversity within a native stand of grass. Native grasslands allow nutrient, energy and hydrological cycles to function properly. When these cycles are functioning, the system is supporting itself, says Cook.

"Biodiversity is the key. Different plants have different growth cycles, so different parts of different plants are more nutritious at different times of the year," he explains. "Grazing animals have an innate ability to select parts of certain plants that are most nutritious. I grew up in Vega, Texas, and I didn't know you had to feed hay until I was much older. Native grasses hold their quality through the dormant season so well that we can maintain the body condition score on a cow with just those native grasses."

Livestock may need additional protein and energy supplementation when grazing stockpiled forages. Native grasses can offer producers numerous benefits, but they are not a silver bullet. Native varieties need to be managed and grazed properly to realize all the benefits of reduced inputs and ecological soundness, according to Cook.

Importance of geographical area

As a former rangeland management specialist and district conservationist with the Natural Resources Conservation Service (NRCS) and a member of a multidisciplinary consulting team at the Noble Research Institute in Ardmore, Okla., Cook is no stranger to the needs of beef producers when it comes to selecting forages that will work in their unique area.

"We produce around 120 different species and varieties of grasses, forbs and legumes on our own farms. Our goal is to produce the right species and the right variety of those species," he explains. "So sideoats grama, for example, we have six different varieties to fit the different ecological regions of our area of influence."

Though focused on the southern Great Plains including Texas, eastern New Mexico, eastern Colorado, Kansas and Oklahoma, Bamert Seed sold varieties to 46 of the contiguous 48 states during 2023.

The focus on regional varieties is of particular importance to the Bamert staff, as it helps to ensure the long-term success of their customers.

"When we recommend sideoats, we want to have a variety that's adapted to your project and your location," says Cook. "We want to make sure that we're recommending the correct species that matches your soil, your climatic conditions and your goals, but also the correct variety of those species because we have to live with our outcomes."

There's an app for that

In order to better serve customers and get a discussion about seed blends started, Bamert Seed utilizes a unique tool. Seed-Spec is a geospatially enabled web application to develop custom native seed blends for producers and landowners using site-specific soil and plant information.

Allowing producers to create an area of interest — whether that is a farm, ranch or pasture — users are then able to map that area off and create boundaries for that area of interest. Using that boundary, Seed-Spec then searches the National Soils Database and inputs USDA soils data from the area specifically selected by the user.

Once the soil data is available, Seed-Spec will provide the types of soils within the selected area, how much rainfall the site gets and a species composition list of what natively and historically has grown on that site.

"Seed-Spec essentially returns a list of species that are adapted to your project, to your area and that are commercially available. It then goes a step further and recommends which variety of those species is most adapted to your selected area," says Cook. "It also gives you a recommendation based off the prevalence of the species historically, what percent of each species you could put in the blend; and allows you to pick what percentage of each species that you want in your blend."

That whole report is just the start of the conversation, says Cook.

Customers working on cost-share and conservation programs often have unique circumstances and requirements that traditionally available mixes might not be able to accommodate. Though certain blends are available for customers, most Bamert Seed mixes are customized based on a customer's Seed-Spec report and individual needs.

Take, for example, customers working on cost-share programs through the NRCS.

"If the Seed-Spec report comes back to the customer and there are varieties included that a particular NRCS office has concerns about, we can develop the blend to

Well-managed and diverse native plants demand resources from different parts of the soil profile at different times of the year.

PHOTO BY TIM SIEGMUND, TEXAS PARKS AND WILDLIFE

Seed-Spec returns a list of commercially available species adapted to the project and the area.

match the specifications that NRCS gives you for any program," assures Cook. "If you're working with NRCS and they have a list of what they want to see within that contract, the species, varieties and percentages can be adjusted to meet any program specifications."

Reconditioning our way of thinking

Native grasses have, perhaps, in the past been seen as less desirable than introduced species. Retraining ourselves to appreciate biodiversity and its ability to attract a mix of flora and fauna capable of building soil structure and increasing water infiltration isn't an overnight change.

However, with increased organic matter, we also increase our water-holding capacity, allowing more of the water that falls to infiltrate. That organic matter comes from roots. How we affect organic matter in our soils the most is by healthy, robust, biodiverse root systems.

"We also have to condition ourselves and our mind's eye about what a weed is. A weed is a plant out of place. But a lot of times, those forbs are higher in crude protein than grass," says Cook. "We can use our grazing animals as a way to manipulate and control those plants while giving a benefit to the animal."

Knowing a producer's goals and the growing history of a site are equally important to setting native grasses up for success.

"In my part of the world, our crop rotation can be wheat after wheat after wheat. That's our rotation. That soil is degraded. But we can't plant the high-successional species — the ice cream plants — in soil that's not in a high-successional state," says Cook. "We take a degraded site, we plant all high-successional species, and then wonder why we're not having success."

Supporting those high-successional species with cover-cropping or a variety of lower- and mid-successional species that will come up first, establish and then set the stage for the highest successional plants is crucial, says Cook.

Support for producers

Ensuring producers are offered guidance every step of the way is another area in which Bamert Seed prides itself. With ecologists on staff who understand grazing management, customers can expect suggestions for how to properly plant native grass mixes, as well as how to manage grass populations after planting.

Cook, who also serves as the chairman of the National Grazing Lands Coalition (NatGLC), encourages producers to research agencies within their state that may offer additional resources.

"The regional and state coalitions work alongside NRCS, but they will help give technical assistance and resources to producers to help them along their native grass planting journey," he says. "Whether you have a coalition in your state or not, the staff at the NatGLC can put you into contact with someone that will help give you some technical assistance in developing your own grazing plan."

Additional information to keep in mind when considering planting native grass varieties are the different sizes, shapes, densities, weights and textures of native grass seed. Specialized grass drills might be needed to ensure all these different seeds are kept in suspension, so all the heaviest seed isn't planted at once.

With more than seven decades of experience and a team of experts passionate about production and reclamation, Bamert Seed offers a diverse set of informational resources and blogs on their website that are available to anyone interested in planting native grass varieties. For more information, visit the Blog and Resources pages at *www.bamertseed.com*. ABB

EQIP: How to Get Started

The Natural Resources Conservation Service (NRCS) works one on one with producers to develop a conservation plan that outlines conservation practices and activities to help solve on-farm resource issues. Producers implement practices and activities in their conservation plan that can lead to cleaner water and air, healthier soil and better wildlife habitat, all while improving their agricultural operations.

The Environmental Quality Incentives Program, or EQIP, helps producers make conservation work for them. Financial assistance for practices may be available through EQIP. Some producers may also qualify for advance payment.

The first step is to contact your local NRCS office. An NRCS conservation planner will schedule a visit to your property. They will walk the land with you to discuss your goals and review any resource concerns. Following the site visit, the conservation planner will develop a conservation plan that includes a variety of conservation practices or activities to address the resource concerns and management goals discussed.

Applications for NRCS conservation programs are accepted on a continuous basis. However, customers should apply by state-specific ranking dates to be considered for the current funding cycle. Please visit the Programs page at *www.nrcs.usda.gov* to:

- ► Find application ranking dates for your state.
- ► See payment schedules for your state.
- ► See application.

To learn more about EQIP, contact your local NRCS office.

Editor's note: Information courtesy of the Natural Resources Conservation Service.