

Rural Roots & Research

Lindsay Shorter, Riley County Agriculture & Natural Resources Extension Agent

“Balancing Cover Crop Mix Complexity and Cost”

Many of us are aware of the numerous benefits that cover crops can provide landowners (improvements to soil health, reduced risk of soil erosion, and decreased nutrient loss, to name a few). Cover crops can meet the goals of many producers, whether you want to extend livestock grazing during winter, plant for wildlife or farming benefits, the possibilities are endless.

For those of us with experience in planting cover crops, depending on our goals, we’ve had to decide on a cover crop mix that best fits our needs. Choosing that mix can sometimes be overwhelming, as there could be literally thousands of combinations of species to select from to create your mix. I remember when we were choosing a cover crop for winter grazing on the ranch we were working on in Oklahoma, our seed salesman was adamant we needed a very complex (and costly) seed mix. Fast forward a few months, and walking through the pivots, it was evident that not every species planted grew. While many producers have already incorporated cover crops into their operations, for those who have not, the seed cost is often cited as a primary reason.

New research was recently released in September, confirming what some of us have seen firsthand: that seeding a complex mix often does not yield noticeable benefits. This research, recently published in the Journal of Soil and Water Conservation and conducted at five USDA Plant Material Centers across the United States, found that increased seeding rates or mixture diversity did not justify the additional cost of seed or species mixes. As with any subject we study, further research will be necessary to confirm these results and refine management recommendations. The full article can be found [here](#).

As the corn harvest wraps up, incorporating cereal rye after corn in a corn-soybean rotation can be a valuable management tool to consider. This addition helps scavenge residual nitrogen, reduce soil erosion and evaporation, and help suppress weeds. Cereal rye can also be part of an effective weed management program in soybean production. The growing cover crop competes with weeds that emerge early in the spring, and residue from the terminated cereal rye can suppress weed growth. Recently, K-State Research and Extension, in partnership with the Midwest Cover Crops Council, released a valuable publication detailing the incorporation of Cereal Rye into a corn-soybean crop rotation. The publication can be found [here](#).

If you're new to utilizing cover crops in your operation or are considering planting them on smaller acres with other goals (like wildlife food plots), feel free to reach out to me. I'm happy to discuss your goals and find a solution that would work for you. Lastly, there are some local resources that not everyone may be aware of, which are available to them when considering planting cover crops. The local Riley County Conservation District has a no-till drill available to help plant and even serves as a seed retailer.

For more information regarding Agriculture and Natural Resources, 4-H Youth Development, or K-State Research and Extension, call the office at 785-537-6350, email me, Lindsay Shorter, at lindsayshorter@ksu.edu, or stop by the office. Be sure to follow Riley County K-State Research and Extension on Facebook for the most up-to-date information on Extension education programs and the Riley County 4-H program.