

# Observe, Measure and Flex

## Planned adaptive spring grazing optimizes use of cool-season annuals.

Achieving optimum spring grazing can be challenging, especially in pastures with cool-season annuals. Turn livestock out too soon or graze it too hard over winter, and you're liable to damage future growth. Wait too long, and you risk missing the most productive opportunity of the grazing season.

Timing turnout just right depends on keen observation, flexibility and responsiveness to your environment, according to Curt Larson, Noble Research Institute ranch facility manager. He notes management decisions will vary greatly depending on region, climate and forage availability, but Larson says the same regenerative grazing principles discussed here can be applied to all environments.

Larson manages the Coffey Ranch for Noble in south central Oklahoma. During his 15 years with Noble Ranches, Larson has seen and experimented with about every approach to spring grazing.

"We've had to change our mentality over the years," Larson says, referring to the days when they would continuously graze monocultures of wheat and rye with stocker calves. Cows were fed hay until the stockers were sold at season's end, and then the cows would graze out the winter pasture, leaving no residual. After that, cows were moved to perennial native or introduced pastures.

### Observation pays dividends

Now, Noble plants diverse forage mixtures as a cover crop in introduced cool-season pastures to enhance plant diversity and improve soil health. Increased organic matter, improved

water retention and reduced soil erosion are among the cover crop benefits. This approach extends the grazing season for cow-calf herds and stockers with little need to feed hay. Adaptive grazing in these pastures magnifies the soil health benefits.

More specifically, for late-winter and spring grazing of retained yearling calves, Noble plants a cool-season mixture in October-November consisting of winter wheat, rye, triticale, oat, vetch, clovers and other cool-season forages. With favorable fall growing conditions, they might start buying stocker calves in November or December.

Ideally, warm-season native grasses from the previous summer were saved to graze as winter forage, offering a holdover until air and soil temperatures warm.

Larson starts monitoring forage availability of the cool-season planted pastures as soon as green emerges, using a forage stick to measure availability and calculate carrying capacity. Noble monitors warm-season perennial grass pasture production throughout the year and that of annual grasses through their production seasons (cool and warm season).

To manage the timing of adaptive grazing moves, the Noble Ranches team emphasizes environmental observation, diversity and measuring forage availability for more precise grazing plans.

### Extending pasture recovery

Managing residue and regrowth rate is a critical tool for adaptive grazing success, according to Hugh Aljoe, director of ranches, outreach

and partnerships at Noble. He notes regrowth rate changes throughout the year with rainfall and season.

"We usually think about residue mainly going into the dormant season as ground cover," Aljoe says. "But we really need to be thinking about it just as much in the active growing season. The residue you leave after a grazing event will determine how much and how rapidly that forage is going to recover."

In peak growing season, the general rule of thumb has been to take half and to leave half, but Aljoe says this requires more context.

"We're supposed to be taking half of the leaf blade, not half the height of the entire plant. That's a big, big difference," Aljoe explains.

The portions of the leaves left after a grazing event during the active growing season are the powerhouse of the plant, fueling photosynthesis and regrowth. Many grass plants have leaf structures 8-12 inches in height, but the bottom 4 inches of the plant is all leaf sheath on which the leaf blade grows. Taking half the plant would rob it of the leaves needed for rapid recovery.

"In our environment, I want to make a rapid rotation through all our pastures in peak growing season at least once," Aljoe says. "If I'm really on top of it, we might get as many as three grazing passes in some of those pastures during the growing season."

These peak season grazing events happen in quick succession on the Noble Ranches. The key is to 'top graze' early in the spring with rapid moves, allowing pastures to fully recover before re-grazing.

The light, quick ‘top graze’ encourages re-growth, stacking on new grazing days behind each grazing event and producing more total forage in the season.

### Consider small paddocks for rapid rotation

Larson and his crew graze a 100-acre bermudagrass pasture in the middle of about 2,500 acres of native range and timber at the Coffey Ranch. Each year they use a no-till drill to interseed a cover-crop mix in fall and split the pasture into multiple grazing paddocks of about 2 acres each, where the cow herd will graze in the spring.

The grazing plan typically calls for one day of grazing in each paddock. They set up temporary polywire fencing a couple of moves ahead to guide the animals through the rapid rotation. Rotation speed might increase or slow, depending on rainfall and green growth.

Ideally, Larson keeps animals moving at a pace that allows them to take only one bite of a plant and leave enough leaf structure to continue photosynthesis and rapid growth. Even at peak production, each paddock gets at least 30 days of recovery.

“By the time we go through the system once, we’re back on top of the prime growth, ready for a second cycle through it,” Larson says. This approach is repeated when the bermudagrass is green, and on the native-grass pastures in the spring (paddock size varies more in the native-grass pastures).

### Match seeding and grazing with soil health needs

While the animals make their way through the first-growth graze, Larson and Noble soil scientists use the Haney soil health test to determine the most advantageous cropping mix for the next season.

Larson no-tills a mix of eight to 15 cool-season species in late fall immediately after cows have grazed several paddocks of the bermudagrass residual. After planting, Larson leaves the fence down behind the cattle, giving them a chance to backtrack over freshly seeded ground.

“I call it ‘treading it in,’” Larson says. “You get that hoof action, plus fresh manure and nutrients from

the animals, and we find a stronger germination response with that.” After two or three days, the back fence line is closed so hoof action doesn’t damage germinating seeds.

### Plan with flexibility in mind

The grazing plan for the ranch is set well in advance, but it’s flexible enough to adjust for the moisture and growth available.

“If I see winter annuals slowing down when we’re not getting the moisture, I’ll kick cattle onto my stockpiled native pasture to give it a chance to catch up,” Larson says. “If my winter annuals are going big, I know I can stockpile that native pasture for later in the next year.”

Larson emphasizes the approach is grazing pastures quickly and lightly, allowing them to fully recover so cattle always have access to the most nutritious forage at any given time.

“The main thing is to just observe your grass,” Larson says. “Try to give yourself as many options as possible.”

**Editor’s Note:** This is part of a continuing series of articles about regenerative ranching from Noble Research Institute, long trusted by beef cattle producers for supporting the industry with research, education and consultation. Follow the series in future issues of *Hereford World* and *Baldy Advantage*, as well as in special 1881 podcasts, at [Hereford.org](http://Hereford.org). Additional regenerative resources and past articles in the series are also at [Noble.org](http://Noble.org).

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Photo courtesy of Noble Research Institute



Noble Senior Regenerative Ranching Advisor Charles Rohla demonstrates using a yardstick to measure forage.