Tracking Pasture Health

By Terri Queck-Matzi

Pasture management is key to a profitable grazing enterprise. And like most things ag – you can't improve what you don't measure.

In a recent NCBA webinar, Jason Sawyer, of the East Foundation, which operates a network of Texas ranches with a focus on sustainability, says key to increasing the value of a ranch is improving pasture, as a livestock grazing resource and wildlife habitat, and the metrics that drive and support the effort. "Everything that we do that changes those values for good or for ill are really some of the best metrics for our long-term stewardship and sustainability," says Sawyer.

That means balancing the demand for forage with the supply of forage available and leaving sufficient residual forage to drive regrowth and support other ecosystems.

"It's not always talking about carrying capacity for cattle only," says Sawyer. "The wildlife enterprise is incredibly valuable in South Texas. It's at least equivalent for most ranches to their livestock operations in terms of revenue generation. And so, it's really important that we think about our stocking rate and habitat management as part and parcel of our overall business strategy."

But first on most rancher's minds is increasing stocking rate.

Sawyer says with much forage volatility in areas like south Texas, producers need to beware the temptation to overstock in good years, focusing instead on renewing pasture during those times.

The East Foundation has set a goal of increasing carrying capacity by 1% a year for 10 years.

Steve Wooten, webinar participant from 2020 Environmental Stewardship Award winner Beatty Canyon Ranch, says after years of fluctuating stocking rate (often liquidating stock at below market) to survive the drought years, the ranch now maintains a drought level socking rate and allows pastures to recover and regrow during years of adequate rainfall.

The move has paid off. "We increased some of our key performance indicators in our herd in cows and then weaning weights went up and stayed up to where we no longer need to have those total number of cows that we were trying to maintain at one point," says Wooten.

Like East Foundation, Beatty Cayon Ranch pasture management includes their wildlife operation. "We inventory key critical species, even insects, because in our 10 to 13 rainfall environment it tells us a lot when we see dung beetles in dung, or certain species around water holes. Flying insects and such give us an indicator of what's happening overall."

Both operations plan forage supplies a year in advance and use benchmarks, fixed points in time, to make adjustments.

Sawyer's primary strategy is to allocate 25% of the October standing crop to the cow herd and grazing, moving calves sooner after weaning when grazing is short. Dual calving seasons allow for adjustments once for the spring herd and once for the fall herd. They graze stockers for longer periods of time when conditions suggest or when pastures need a little more grazing.

They use a deferred rotational grazing system specific to their environment that includes fencing waters instead of cross-fencing, and routinely moving the cows in groups, producing another benefit.

"Because we're asking the cows to move periodically as a group, they've become much easier to gather for branding or weaning or other operations," says Sawyer. "It's one of the metrics that we track

for efficiency and the cost of gathering cattle.” In five years the ranch has decreased its cost for helicopters to gather cattle from $300,000 to $12,000.

East Foundation collects data through all phases to back up decisions and contingency plans, and uses nearly real-time financial accounting closing books within week of the end of the month, making it easy to identify the cost per cow at any given time.

Beatty Canyon Ranch is a 600 head Red Angus-based calf operation in southeast Colorado in the Purgatory River Canyon. It’s a tough environment, where “rotational grazing” means seasonally moving the herd from the canyon lands to top mesa savannas.

Wooten uses October, March and January benchmarks to assess any needed stocking adjustments, a decision that gets made immediately with no “let's wait and see.”

His goal is to eliminate what he calls “cattle that are on a welfare plan” and create a cow herd that lives off of vegetative resources, with minimal supplementation.

They utilize technology to enhance data collection. Pasture maps, transect lines, photo points and vehicle mounted cameras are part of their repertoire. Apps allow them to collect data from the pasture without WIFI, then transfer it to the office desk computer. With the tech tools they are able to track pasture species diversity and percent of bare ground, wildlife, and cattle movements and even body condition score.

“Pasture management is a continuous learning curve,” says Wooten. “You’re not going to get it perfect the first time. If you don’t have a plan, make one, and make sure your financial objectives are built into the plan. Then learn from your experience, adjust, and keep going.”