



11

Months of Grazing

Western Nebraska operation achieves nearly year-round grazing with annual forages.

by *Kindra Gordon, field editor*

Near Gordon, Neb., Plum Thicket Farms offers up some impressive numbers. The operation includes 563 acres of irrigated farmland, 1,774 acres of dryland farm ground, 2,230 acres of deeded native pasture, 1,850 acres of leased pasture and 380 acres of leased cornstalks. In 2015, they managed nearly 300 cow-calf pairs, 99 yearling heifers, 499 stocker steers from May through July, and a couple hundred head of steers and yearling heifers they carried over to 2016.

They strive to maintain an 11-month grazing season and have produced 2 pounds (lb.) per day average gains on calves grazing sorghum swaths.

Of their family operation, Nancy Peterson

says, “Pasture is our most limiting factor.” However, she adds that the secret to their success has been through the reliance on annual forages integrated with the use of irrigated crop ground and dryland pastures.

Peterson, who formerly operated a veterinary practice in Colorado, and her family purchased their Nebraska ranch in 1998. Today, she serves as general manager of the family operation, which also includes husband Rex managing the cattle; son

Patrick heading up the farming operation; and daughter-in-law Krista, who is a large-animal veterinarian, overseeing herd health. They hire two summer interns to assist where needed.

Through trial and error, Peterson reports that they’ve had a “learning curve” to utilizing different forages. Their system includes calving on rye in May; grazing sorghum swaths in winter; utilizing crop residue, especially cornstalks; and grazing cover crops following wheat, oats or spring cocktails (if moisture is available). From their experiences, Peterson offers these management tips for various forages.

Spring rye

The Petersons use rye in a variety of scenarios. Following irrigated pinto bean harvest, they plant rye at a rate of 90 lb. of seed per acre. They include 60 lb. of rye in forage cocktail mixes to be planted into irrigated wheat stubble. They will also plant dryland rye as a cover crop following other



spring crops. Peterson particularly likes the new cultivar Elbon Rye because it breaks dormancy earlier.

That said, she admits grazing rye can be challenging, explaining, “It grows fast and gets rank quickly.” Peterson advises grazing rye when it is about 8 inches (in.) tall. To extend the grazing interval of rye, the Petersons have learned to swath it just as it starts to head. This tactic also helps preserve the nutritional quality and palatability.

Peterson points out rye will also provide good regrowth after cutting if adequate moisture is available.

Sorghum

Another staple of the Peterson operation includes grazing sorghum swaths. Peterson advises choosing a BMR (brown midrib) variety, and says semi-dwarf cultivars have better leaf-to-stem ratios and are more drought-tolerant.

For optimum quality and quantity, Peterson advises cutting the sorghum as heads start emerging from the sheath — as well as cutting above the growing point to allow for regrowth. However, Peterson cautions, “Never turn cattle on sorghum until at least five days after a hard freeze to avoid danger of prussic acid. Always check for nitrates.”

Regarding grazing of sorghum swaths, Peterson says they do not cross-fence or limit access to swaths. They count on about 3 animal unit months (AUMs) of production per acre. Peterson says the swaths work well for wintering cows and backgrounding calves if supplemented with dried distillers’ grains. She estimates the cost of gain on calves at about 70¢ per lb.

Cool-season forage cocktails

The Petersons also use a mix of forage cocktails — multiple crops planted together, including a mix of annual cereal grains like oats, barley, rye, millet or sorghum for biomass production, a legume for nitrogen fixation and a brassica or deep-rooted crop to alleviate soil compaction. Peterson cautions that these are “not for the faint of heart.”

She explains, “You must have a herd population that can be flexible, because this forage is totally dependent on the weather and adequate rainfall when you are on dryland area.” She’s found yearling heifers offer the most flexibility. She advises if taking in stockers to make sure your contract specifies their removal at short notice in the event of hail, fire, too much rain or drought.

Peterson says the benefits of a forage cocktail crop are that multiple-species crops are more drought-tolerant and have mutually beneficial traits. A mix can also improve the nutrient quality to the grazing animals. Says



► “Pasture is our most limiting factor.” However, Nancy Peterson adds that the secret to their success has been through the reliance on annual forages integrated with the use of irrigated crop ground and dryland pastures.

Peterson, “You want at least one legume in the mix to fix nitrogen. Brassicas such as turnips, radishes, canola or collards help make phosphorus more available to plants, and also help feed soil bacteria and increase soil biomass. The downsides are you have to watch seed costs, and brassicas tend to increase the cycling rate of the residue.”

For their cool-season cocktails, the Petersons plant at the end of March through the first week of April. They typically do a mix of 60 lb. oats, 60 lb. peas, 2 lb. buckwheat and 2 lb. forage collards. They will fertilize based on a soil sample to help these plants get going.

Peterson advises waiting to graze this mix until the oats are 12 in. tall. Then, during the first grazing pass, remove only about 4 in. to stimulate stooling. However, on the second trip through these mixes, she suggests grazing down to 4 in. A third grazing is a possibility, depending on moisture and ambient temperature. In the event of heavy precipitation, she advises removing animals from the paddock to minimize soil disturbance.

She also advises, “Keep the paddocks small enough so you can control rate of forage removal and move through them quickly. Stocking density is the hardest thing to figure out.”

Warm-season forage cocktails

For a warm-season cocktail, the Petersons have tried 12 lb. soybeans, 10 lb. grazing corn, 1.5 lb. forage collards, 2 lb. buckwheat and 1 lb. sunflowers. This mix was planted May 15, and the seed sat there until soil temperatures warmed up in June.

Says Peterson, “We won’t try this again. May was so cold and wet, nothing came up until early June, along with all the summer weeds that we could not control. We are

too far north for reliable growing weather in May.”

They have tried cocktails planted later in the summer after a rye crop and had success. Calves were turned on to it at weaning.

“They put their heads down and grazed. There was very little stress or sickness,” according to Peterson. She says cost of gain was higher, but the management value and pounds added made up for it.

She issues another caution: If you are going to plant a cocktail to graze in fall, feed Rumensin® to prevent atypical interstitial pneumonia (AIP).

“If you are coming off mature native pasture onto a lush cover crop, you could lose cows to cow asthma, or AIP.” She advises feeding a range block containing Rumensin three to four days before moving the cattle to the cocktail pasture and continuing to offer it for the first couple of weeks to remove the risk.

Notes Peterson, “AIP is fatal, untreatable and will affect a lot of cows.”

Peterson says the place to use warm-season cocktails is “strategically.” She calls them a “neat tool if properly used. As an example, Peterson says they put first-calf heifer pairs on a cocktail mix in the fall and were able to graze it until about Nov. 1. Calves were gaining more than 2 lb. per day, and young cows had an average body condition score (BCS) of 5.8 (on a 9-point scale). Conversely, if those same pairs were on native range, Peterson says the cows would be melting and the calf weights would be standing still.

Peterson especially likes planting cocktail-mix cover crops after irrigated forage silage is removed. However, to reduce the risk of prussic acid poisoning, she advises avoiding the addition of sorghum to cover crops to be grazed in the fall. She says in the future she’ll put more corn and fewer sunflowers into the irrigated cocktail mix. The corn will increase pounds of palatable forage.

Overall observation

Peterson says the biggest advantages of using annual forages are that they allow land managers to rest native pastures during the critical June-August window.

“It is especially valuable during drought recovery,” she adds. Additionally, she says there are benefits you can’t measure, such as building the soil. “The manure and plant roots added to the soil biomass are helping build organic matter. You must realize you are farming for the future. Our soil is really sandy, and through our management, our organic matter is slowly trending upward.”



Editor’s Note: Kindra Gordon is a freelance writer and cattlewoman from Whitewood, S.D.