

The Big Time



What can be learned from a big outfit?

by **TROY SMITH**, *field editor*

What could cow-calf producers managing 500, 200, 100 or fewer cows learn from a ranch that weans more than 10,000 calves per year? Big outfit manager Trey Patterson believes the considerations driving many economic decisions have little to do with ranch size. The president of Padlock Ranch thinks certain key factors influence business decisions on most commercial cow-calf operations, and not just very large ones.

Certainly, Padlock Ranch is very large. Founded by Homer and Mildred Scott in 1943, and still owned by the Scott family, the ranch stretches from Ranchester, Wyo., northward to near Hardin, Mont. On each of its several units, Padlock cows are grazed year-round, utilizing a patchwork of deeded and leased range that includes public and tribal lands. May- and June-born calves are marketed as 800-pound (lb.) yearlings, following a postweaning winter spent in the ranch's own feedyard. Five thousand acres of farm ground includes some irrigated land producing corn silage for growing rations. Other crops include barley, for grain and hay, plus alfalfa and grass hay. The feedyard and feed resources are also

used to add value to animals culled from the breeding herd.

A former South Dakota State University Extension beef specialist, Patterson has been with Padlock Ranch for nearly 10 years. In August, he spoke at the 2016 Nebraska Grazing Conference in Kearney, Neb., about things that drive decision-making. Patterson listed three primary factors that, in his opinion, all ranch managers ought to consider:

- efficient and correct use of natural resources;
- costs and cost-benefit relationships; and
- system integration.

Efficient and correct use of natural resources

Patterson called the health of the land paramount to the future of any agricultural enterprise. For ranches dependent on healthy grasslands to succeed, their managers must strive for diverse plant communities with minimal bare ground, deep, drought-resistant root systems and functioning nutrient cycles. To promote healthy grasslands, Patterson believes good grazing management is paramount and appropriate stocking rates are essential.

"If you overstock, you destroy the resource. If you understock, you are inefficient," stated Patterson, emphasizing the need to match



"To manage stocking rate, we will cull older bred cows as necessary to keep our cow numbers where they need to be. These cows are sorted and classed up to be sold as short-term cows," Trey Patterson told attendees of a 2016 Nebraska Grazing Conference in Kearney, Neb. The president of Padlock Ranch shared key factors that influence business decisions on commercial cow-calf operations of all sizes.

stocking rate to carry capacity for optimum business efficiency.

"You can manipulate stocking rate by adjusting animal numbers or by shortening or lengthening the time spent on a particular grazing resource. We do both," added Patterson, explaining how the ranch applies planned, time-controlled grazing.

Padlock cattle are managed in fairly large groups, ranging from 750 to 1,000 head, with each group rotated through a series of pastures. The duration of grazing in each

pasture can vary with its size and the season of use. Calling the early growing season a critical time for managing plant health, Patterson said the time cattle graze each pasture is typically shorter during spring and early summer, but longer when plants are near maturity or dormant. The goal is to minimize the opportunity for growing plants to be bitten more than once.

Noting how some managers can graze cattle in small paddocks and move them daily or every few days to avoid overgrazing and maximize rest, Patterson said Padlock management also strives for long periods of rest for each pasture. Ample rest during each growing season improves range condition and increases carrying capacity long-term. However, when seeking a balance between ideal grazing management and ideal cost management, Padlock labor constraints affect frequency of pasture moves.

Patterson explained by first noting how the decision to calve in May and June was made to reduce winter feed demand. However, a late-spring calving season coincides with the time of rapid grass growth — a time that, ideally, duration of grazing in each pasture should be shortest and rotation most frequent. With only two to three employees responsible for overseeing management of up to

2,000 cows on each Padlock unit, frequent moves of cows with very young calves can be difficult. In grazing management, science, art and economics intertwine, so Padlock plans call for pasture moves in terms of weeks rather than days.

“We may be in each pasture for two to four weeks, which is certainly better than season-long grazing. This is especially true when the season of use is varied across years,” explained Patterson. “Many of the pastures that are grazed in May and June may be grazed again later in the year, since the cattle were moved based on timing and not removal of biomass. These pastures can also be rested for the remainder of the year in consideration of the next year’s grazing or pasture renovation.”

Costs and cost-benefit considerations

When looking at costs and cost-benefit considerations, Patterson noted that Padlock Ranch uses an accrual enterprise accounting system to track costs. By knowing the cost per pound of calf sold and cost of bred heifer entering the herd, for example, he can look for leverage points for managing those costs. What is very clear to Patterson is that cow depreciation — the cost of replacement females depreciated to salvage value over time — is a large expense.

Ways to reduce cow depreciation include reducing the cost of replacement females entering the breeding herd, increasing the salvage value of females leaving the herd, and increasing the

number of years a breeding female remains in production. Padlock Ranch has employed all three strategies.

“We have had success in developing heifers on range,” said Patterson. “We have demonstrated over multiple years that we can winter heifers with modest amounts of supplement and no hay, while reducing variable costs and achieving reproductive success.”

Patterson said harvested or purchased feed costs were \$1 per head, per day less for range-developed, compared to heifers developed in the ranch’s feedyard. Pregnancy rates were essentially the same. Patterson reminded the audience, however, that the heifers were bred for May calving, so range-developed heifers spend the spring and early summer on green grass, prior to breeding. With that said, it’s not unusual for heifers to weigh well over 800 lb. when they are artificially inseminated (AIed) in July.

While it works well, Patterson said not all Padlock replacement heifers are developed on the range. Rather, use of range for developing heifers is opportunistic.

“We develop heifers on range when we have sufficient winter grass available to do so,” explained Patterson, noting that availability is variable. To always develop all heifers on range would require buying or leasing more grassland, managing fewer mature cows or feeding cows harvested forages to free up winter range. Pursuing any of those options would contribute to an increase in the cost per calf weaned.

Therefore, drylot heifer development remains as part of the Padlock plan.

“So we winter out as many heifers as we can, but have not changed our cow numbers or cow system to accommodate doing this every year,” said Patterson. “There are other considerations, like whether range-developed heifers become better cows. We are monitoring this.”

Range development definitely reduces Padlock heifer development costs. If it contributes to cow longevity, it should help reduce cow depreciation costs. However, Patterson believes in giving extra attention to getting young females rebred. Reducing the number of cows that fail to rebreed for their second or third calves means more cows stay in the herd longer and cow depreciation expense is reduced.

“We can put fewer resources into developing heifer calves, but once we get them bred, we should consider spending some money to keep them bred as young cows,” stated Patterson. “When wintering females pregnant with their first or second calf, we spend more money than on the rest of the cow herd. Only 3-year-olds in good condition are turned out on winter range, and they are run with less grazing pressure than older cows. We will feed hay to thin and young cows, especially bred heifers.”

As another example of cost-benefit consideration, Patterson talked about the rising costs of some of Padlock’s

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leased land. The increase in per acre cost has been substantial, and affordability is questionable when certain leased properties are considered individually. The cost per unit is too high, but when factored into the entire Padlock system, the effect on the overall cost of producing a calf was less significant than expected. When

spread across the system, a 60% increase in the cost of certain leases would increase the cost of producing a calf by 6.9% and still leave some margin for profit.

“While the increase seems drastic, when the leased land is leveraged against the deeded land, we can afford to pay more for strategic leases that are important to our

operation,” Patterson added. “It’s important to understand these relationships when making decisions.”

System integration

How the pieces and parts of a ranching operation fit together impacts decision-making. While big outfits are

perceived to be more able and likely to achieve greater enterprise diversity and production system integration, Patterson believes operations of modest size can do it, too. The advantage that Padlock Ranch gains from system integration is greater flexibility. For example, Patterson cited ways that marketing of “culls” can enhance the ranch revenue while facilitating resource management.

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— *Trey Patterson*

“To manage stocking rate, we will cull older bred cows as necessary to keep our cow numbers where they need to be. These cows are sorted and classed up to be sold as short-term cows,” said Patterson, adding that marketing of “re-bred” young cows has also become a significant revenue stream.

“Young, open cows are exposed (to bulls) for fall calving, and sold as bred cows in the spring,” Patterson explained, noting how repeat buyers now look to Padlock as a source of replacements for fall-calving herds. “Our customers can buy a replacement cow cheaper than they can build one, and we sell a cow for more than weigh-up price.”

According to Patterson, an integrated system affords options for responding to drought, fire, extreme winters and downturns in the market. The feedyard allows the timing of calf marketing to be more flexible. The feedyard’s use is not limited to weaned calves, and homegrown feed can be used to manage the ranch through short-term challenges, such as the August 2012 fire that burned more than 80,000 acres of range.

In response, calves were early-weaned and cows were moved away from the burned area. Calves were sold at lighter weights than normal, but marketing them sooner allowed corn silage to be used for wintering cows at reasonable cost.

“Our system allowed us to hold our cow herd together,” stated Patterson. “We then had our full factory intact when record prices were reached in 2014 and early 2015.”

When it’s all boiled down, strategies that enhance flexibility are beneficial to operations large and small. If they aren’t nimble, even the big outfits can flounder and fail. According to Patterson, operations that are capable of dealing with changing circumstances are better able to maintain profitability.