



BEEF SOLUTIONS

Bedding: An annual approach

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In a popular YouTube video, Admiral William McRaven, a retired four-star admiral with the U.S. Navy, states, "If you want to change the world, start off by making your bed. By the end of the day, that one task completed will have turned into many tasks completed. Making your bed will also reinforce the fact that the little things in life matter. If you can't do the little things right, you will never be able to do the big things right."

While Admiral McRaven was specifically addressing graduating college students preparing to embark on their life's journey, this message also rings true for cattlemen. Feed-yard operators and ranchers rarely end the day having only completed a few tasks. However, bedding cattle is often put on the backburner and/or is considered a weather-dependent chore. However, bedding is one of the "little things in life that matter" and has a major impact on cattle health, performance and profitability year-round.

Starting calves

[The process of weaning and adapting calves to the feedlot is one the most impactful events of their lives.](#) Success hinges on pen space, bunk space, water availability and nutrition, as well as vaccination and health protocols. These are all important factors, but consider the animal's perspective. More than likely, the calves just stood on a cattle pot for most of the day, if not longer, and are exhausted. Offering calves a dry area resembling their home pasture will reduce their stress and provide them with much-needed rest. Some good bedding options for lightweight calves are straw, corn stalks and fine-ground wood shavings. Avoid coarse bedding that can only be broken down by the weight of the animal, such as soybean straw, whole corn cobs, coarse-shredded wood and recycled sheetrock. Reducing stress for calves is the first step to a healthy and productive start.

Feedlot cattle

After getting your calves started, maintain a dry bedded area throughout the entire feeding period. This is important because extended bouts of moisture and mud in feedlot pens can decrease performance and profitability. For instance, standing in four to eight inches of mud can decrease gains by up to 15%, and even deeper mud can reduce gains by 25% (Mader, 2011). The energy required for maintenance increases as a result of trying to walk to the bunk during muddy conditions, and subsequently, fewer trips are made to the bunk, resulting in reduced dry matter intake.

Cattle can endure cold weather if their hair is dry. Having a wet hide and tags can increase maintenance energy requirements by 2% for every incremental drop below 30 degrees Fahrenheit. Cold stress can increase the cost of gain by up to 50%, as more days on feed are needed to reach market weight. University research on bedding economics shows a positive return on investment across a wide range in cost of gain.

Confinement bed-pack barns require bedding as a standard operating procedure. Deep-bedded confinement barns are zero-runoff facilities, capturing 100% of the manure and urine produced. Additionally, bed-pack barns usually have concrete floors. Bedding provides a soft place to stand and lie down, as well as better footing to prevent slips and injuries. Typically, outdoor lots require two to three pounds of bedding per head per day in the wet and snowy months. In deep-bedded confinement barns, this requirement increases to five to seven pounds of bedding per head per day year-round. A good rule of thumb in deep-bedded confinement barns is one and a half to two large round bales per animal unit per year. Bedding should be added one to three times a week, depending on the pen conditions. Deep-bedded confinement barns should be completely cleaned out at least once a year and before new cattle are brought into the pen, along with routine cleaning to remove manure behind the bunk line.

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When we consider feedlot heat stress, bedding isn't the first thing that comes to mind. However, it can provide relief during heat events. Mild heat stress can start at 78 degrees Fahrenheit. As the ambient temperature climbs into the 90s, pen surfaces can exceed 130 degrees. Bedding serves as an insulator in both extreme cold as well as heat, conserving warmth on frozen ground and reducing summer pen surface temperatures by up to 25 degrees (Rezac *et al.*, 2012).

Offering bedding year-round is always recommended for cattle on self-feeders, as self-fed diets contain little to no roughage. Bedding two to three times per week allows for the consumption of one to two pounds of fresh bedding each day. Fiber intake supports a healthy rumen mat, promotes rumination and helps alleviate bloat and acidosis. Since one to two pounds of bedding is consumed daily, producers must account for this when calculating their annual bedding needs.

Cows and bulls

Mud is not only deleterious to feedlot cattle — it also affects cows. Ranchers with winter- and spring-calving cows know the importance of bedding for cow comfort. Good housekeeping reduces the pathogen load in the facility. As such, remove the used bedding as pairs exit the barn and new calving cows enter. The same holds true for calf creep areas: Replace the bedding frequently to improve calf comfort and health. Even when calving is still months away, cows gestating through the winter and spring should be bedded. Lying on frozen ground or standing on snow puts cows at risk for frostbite and sunburned udders and teats, negatively affecting milk production and calf growth. Additionally, mud and manure adhering to the hide reduces the hair's insulative effects, increasing energy requirements and feed costs.

Bedding bull pens is especially important but is sometimes neglected during the busy fall harvest and spring calving seasons. Keeping bulls warm and dry during the winter and spring keeps them productive during the breeding season. Not bedding bulls increases the risk of frostbitten scrotums, compromised fertility and failed breeding soundness exams. Additionally, bulls standing on hard, frozen ground or in mud are at a greater risk for hoof and leg injuries, which could prevent them from covering cows during the breeding season.

Conclusion

If you want to change your world, start by bedding your cattle. We can't control what the environment has in store for us, but having a bedding plan in place can reduce its detrimental effects. Bedding is not an expense; it's a profit opportunity for all ages and stages of production. There are few management strategies that can have as big an impact as taking an annual approach to bedding. This one solution can solve many problems and can tip the balance of profitability in our favor.

Literature cited

Mader. 2011. Mud effects on feedlot cattle. Nebraska Beef Report p. 82-83.

Rezac, D.J., D. U. Thomson, and C. D. Reinhardt. 2012. Bedding material in dirt-floor pens reduces heat. Kansas Agricultural Experiment Station Research Reports Vol. 0 p. 1-3.