

Winter months require a diligent eye from bull owners.

by Megan Silveira, editorial intern

attlemen look to the bulls they purchase to push their entire herd forward. However, if neglected during the winter months between breeding and calving season, even the toughest bulls may be ill-prepared to perform when called to duty.

That can result in poor pregnancy rates, a delayed calving season and fewer pounds to sell after weaning. Properly caring for bulls this winter will help ensure a successful breeding season and avoid these profit robbers.

Battling winter

"In the winter, we don't worry about our cattle as much," admits George Perry, state beef reproductive specialist and professor at South Dakota State University (SDSU), adding a big but ... "If we neglect bulls in the winter, they won't be able to perform during breeding season."

Perry advises ranchers to keep

bulls in good health in the months leading up to breeding season.

Steve Williams, owner and operator of Midland Bull Test in Columbus, Mont., says the Northern Plains and the northern portion of the Midwest are known to have some of the strongest winters. With this in mind, ranchers in these areas need to have supplemental feed ready at all times.

Even in areas of the country not known for bad weather, Perry says, ranchers should be ready to take extra steps to care properly for their bulls. In these areas, bulls might be at even higher risk if a cold front hits, since they are unaccustomed to coping with bad weather.

"An ounce of prevention is worth a pound of cure," he says. "You have a sizeable amount of capital tied up in the herd bulls, so take care of them and be prepared for the worst."

If a storm does hit, Williams says all bulls will need adequate nutrition and protection from the elements. He suggests ranchers invest in windbreaks or an openface shed if no natural protection is available. Have a plan in place for what to do in case of a weather event, including a plan for where to move animals if necessary.

Two halves make a whole

Females often receive the majority of a rancher's focus, but Williams encourages producers not to forget the importance of sires.

"Remember that the bull battery is half of the calf crop, and the herd bulls should be taken care of, as well," he says.

All cattle have similar needs throughout the year, but during the winter, bulls will require a little extra care. Perry explains the biggest difference between caring for cows and bulls during the colder months is bedding.

He says bulls do not have much protection from the elements in the scrotal area, and they require bedding to protect their scrotums from the frozen ground. Frostbite can easily occur, negatively affecting the animal's fertility.

"What most producers don't think about is spermatogenesis," Perry said. "If the bull gets frostbite or becomes injured, it takes about 61 days after the injury heals until quality sperm is being produced again."

Winter months precede breeding season and unproductive bulls can set an operation behind schedule by reducing conception rates, delaying calving season and reducing pounds of calf weaned — all of which can negatively affect profitability.

Perry says most bulls are kept in pastures or small lots during the winter. Providing a source of bedding can help prevent frostbite and keep an operation on track. He suggests putting a layer of hay or straw down to act as a barrier from the frozen ground.

Perry warns producers bedding will need to be replaced on a fairly regular basis. If weather hits, the hay will become soiled and lose its ability to protect the cattle.

Preparing for breeding season

Calves are a rancher's main source of income, so it is no surprise breeding season is considered one of the most important times in an operation. A solid calf crop starts with a solid foundation — the bull's ability to perform during breeding season.

To help build this foundation, Perry encourages ranchers to incorporate bulls capable of gaining weight during winter months into their breeding programs.

Most bulls lose 100-200 pounds (lb.) during breeding season. Bulls will have a better chance of completing a successful breeding season if they can bulk up during the winter.

Williams says Angus bulls are typically well-suited for winter months, as the breed is known for being hardy and resilient. He too, however, understands the importance of keeping bulls in top shape before breeding season.

Milton Orr, University of Tennessee (UT) Extension agent and county director, offers base guidelines for winter bull nutrition in UT Extension's *Wintertime Bull Management* fact sheet. Those guidelines are based on bull weight and condition (see Table 1).

A hay diet consisting of 7% crude protein and 50% total digestible nutrients (TDN) should meet a

mature bull's requirements unless he needs to gain weight, he says, advising producers to target feeding at 1.5%-2% of body weight on a dry-matter (DM) basis.

Young bulls that lost weight during breeding season and that are still growing need to gain upward of 2 lb. per day during the off season, he says.

"High-risk bulls (young and/or thin) need a diet that consists of roughage at about 2% of their body weight and enough grain to make the total diet consist of about 7.5%-9.0% crude protein and 55%-65% TDN."

Orr reminds producers attention to mineral intake is also required, especially zinc, which has been shown to affect sperm production.

Williams suggests bulls undergo a breeding soundness examination (sometimes referred to as a BSE) and be vaccinated 45-60 days prior to the start of breeding. With these

Table 1: Nutrient requirements of bulls at varying levels of gain

			Diet nutrient density	
Body wt., lb.	ADG, lb./day	DMI, lb.	TDN, %DM	CP, %DM
1,200	1.0	25	56	7.8
1,200	2.0	26	63	8.4
1,400	1.0	27	56	7.5
1,400	2.0	28	64	8.0
1,600	0.0	27	48	6.9
1,600	1.0	30	56	7.3
1,800	0.0	29	48	6.8
1,800	0.5	31	52	7.0
2,000	0.0	31	48	6.8

ADG = average daily gain. TDN = total digestible nutrients (energy). CP = crude protein. DM = dry-matter intake. Source: *Wintertime Bull Management*, Milton W. Orr, University of Tennessee Animal Science Series.

actions and the provision of minerals, he says, bulls can be at the top of their game during these crucial breeding months.

While Perry says Angus bulls are well-adapted to cold climates, ranchers need to ensure the animals' energy levels stay high even as the temperatures fall, as cold weather, wind and wet hides increase nutritional needs significantly.

As a general rule of thumb, energy requirements increase

about 1% for each degree of cold

However, Perry warns against letting bulls get overconditioned. If bulls put on too much weight, they will begin to deposit fat in the scrotal area. This extra coverage will prevent them from dissipating heat from their testes and will have a negative effect on fertility.

