

Take time to brush up on sound strategies.
by Barb Baylor Anderson

W orking through calving season is a little like riding a bike. Once you master the skill, you know what to do the next time. But university cow-calf specialists across the country caution that even those who have circled the block a few times can benefit from brushing up on calving-facility basics before the season begins.

Calving facilities can range from an open pasture to a permanent building, depending on what is needed in that area of the country. In the Southeast, producers generally take advantage of a mild climate at calving time, says John Hall, Virginia Tech University Extension beef cattle specialist. "Producers in this region typically calve on pasture with no weather problems. But they should have a calving barn available, especially for heifers."

Hall recommends producers either purchase or build maternity pens and calving assistance stalls in calving barns, preferably with headgates and swing-away sides.
"On calving stalls, I like to see side panels that split in half horizontally, so the bottom half can swing away, toward the cow's head," he says.
"That helps the calf nurse, which is important in the first four hours after birth. It also keeps the cow stable, so if she kicks, you and the calf are less likely to be injured."

Calving stalls are especially useful during inclement weather or for weak calves. They are not recommended to birth every calf because repeated use can set the stage for the spread of scours. Even when stalls are cleaned methodically, Hall says, pathogens are likely to remain in the area.
"Portable calving barns are also an option, as long as they are moved from spot to spot so they are always in clean areas," Hall says. "The calving barn should also be
adjacent to the calving pasture for best results."

Calving on pasture
The ideal calving pasture in the Southeast, Hall says, has a well-drained slope that preferably faces south or east to catch the sun and to keep the cattle out of the wind. He suggests producers include a shelterbelt of trees for a windbreak, as well as watering tanks or frost-free fountains. Creeks should have gravel bottoms where cows enter and should meet local conservation recommendations.
"The calving pasture has to be clean and well-drained and preferably not in use three to four months prior to calving," Hall says.
"In Virginia, we stockpile
"Our biggest threat is not blizzards or snow, but 40-degree temperatures combined with rain or sleet. Precipitation with cold weather can force calf mortality higher, by as much as 10\%."
fescue and then often use those pastures for calving. Cows should be moved to the calving pasture about two weeks prior to calving and moved out about three days after."

Hall encourages producers to allow cows half an acre to an acre prior to calving and to provide cow-calf pairs with about two acres after calving. He cites success by some producers with strip - John Hall calving, or placing temporary fences around strips in the pasture and moving the fences to cleaner areas or strips as more cows calve.
"Strip calving is time- and laborintensive," he says. "Producers may be better off just making sure pastures are not so big that it is hard to find the cows as they calve."

Be prepared
In Illinois, Doug Parrett, University of Illinois Extension beef specialist, encourages producers to begin by pinpointing calving dates so that cows can be prepped and
calving pastures and barns can be used more efficiently.
"By having accurate breeding dates, producers can place cows in calving facilities about a week prior to calving," he says.
"Research shows that cows synchronized and bred [by] AI will calve over a five- to eight-day period. If those cows are locked in a pasture or lot early enough, you can get them in if they start to calve or have problems."

Parrett says first-calf heifers, especially, should be placed in an accessible area to a calving barn, since as many as one-half of first-calf heifers need assistance. The barn should also be designed so that one person can easily maneuver first-calf heifers and other cows into the facility for calving as necessary.
"Corral designs that allow one person to work a cow from a big pen into a smaller pen and into a chute is a must," he says. "In addition, the month before calving should be the time to check equipment. Make sure gates swing freely, fix broken locks and latches on gates, replace broken lights, set up windbreaks and make sure there is easy access to warm water and a heated room."

Keep 'em dry
A warm, dry area is also important for cow-calf producers in Missouri and other Midwest states, suggests David Davis, superintendent of the University of Missouri's Forage Systems Research Center (FSRC) and Thompson Farm.
"The problem with calving in late February or March is the wet weather," he says. "Producers prefer to calve on pastures, but they need to make sure they have dry areas. On the research farm, we tend to gravitate to a windbreak area on higher ground where hay can be rolled out for the cows and calves during periods of wet weather."

Gene Schmitz, University of Missouri northwest regional livestock specialist, adds that hotboxes can be a good investment for

Fig. 1: Portable calving shelter design


Source: James Boedicker, University of Minnesota
For complete design, contact John Hall, Virginia Tech University, at (540) 231-5252.
producers to use to warm chilled calves. "Hotboxes or indoor calving facilities don't have to be elaborate, but it's best to have clean and dry facilities as an insurance policy for potential problems."

Schmitz reminds producers that shelters should be open on one side and designed to keep the cow and calf together to limit the amount of labor required to care for the pair.

As in Virginia, the Missouri specialists recommend calving pastures with a south slope, if possible, to take advantage of limited winter sunshine. They also suggest planting durable ground covers on calving pastures.
Similar advice is doled out in Texas, where "higher and drier" is the rule for choosing calving pastures. Texas A\&M University Extension beef cattle specialist L.R. Sprott says clean, well-drained pastures with shelters from rain and wind are ideal. A calving shed is not necessary, although he recommends purebred operations have them available. He also advises producers to use hay rings on hay bales during calving season so the hay does not end up as bedding.
"We don't have the temperature problems to contend with that areas to the north have, although cows need to be protected from the elements. Mature cows can handle the weather better than firsttime heifers," he says. "Pastures need to be large enough to prevent pathogens from becoming a problem, which means if you run 100 cows, you need 200-300 acres to give them plenty of room."

## Northern needs

To the north, calving structures are more of a necessity. Greg Lardy, North Dakota State University beef specialist, says buildings are needed to minimize the stress from the weather in that state, especially for producers who schedule calving early in the January-February time frame.
"Facilities should be functional so you can move the cows in and out as a one-man operation and they should be large enough to hold two or three days' worth of calving pairs during poor winter weather," he says.

In addition, facilities must be clean to minimize disease, prevent mud buildup and keep manure off udders. Good building ventilation is recommended to keep the air fresh and to prevent respiratory ailments.
"After the first 24 hours, we tell producers to put the pairs out to pasture with bedding," he says. "They are better off outside in the sunshine with a good windbreak."

Once outside, Lardy says the cows should be spread out and surrounded by such windbreaks. He suggests producers place

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Fig. 2: Calf protection shed


Source: Fig. 3.2, Small Scale Beef Production Handbook, MidWest Plan Service, Iowa State University, Ames, lowa.

Fig. 3: Floor design for calving facility


Source: Fig. 3.3, Small Scale Beef Production Handbook, MidWest Plan Service, Iowa State University, Ames, lowa.
round bales in a "V" shape for a windbreak, or place a windbreak fence in the pasture with bedding for the herd.
"Cold weather is not as damaging as wet weather or mud. But when the three are combined, energy requirements really increase," he says. "If the cows and calves are kept dry, they can tolerate the cold much easier."

## Impact of the elements

In fact, university beef specialists across the country agree that wet weather and mud are much bigger concerns than cold temperatures during the calving season.
"As cows calve, they need to be kept away from each other and away from the mud," says Missouri's Schmitz. "Mud keeps the
cows wet and increases their energy demand as they try to move through it. Mud also harbors disease organisms, which can lead to less intake of feed and the whole scenario can snowball through the herd."

In the Mid-Atlantic states, Hall says mud is an issue that is especially troublesome near round-bale feeders.
"The mud and activity around feeders can lead to scours. Rolling out bales is a way to prevent such problems," he says. "Our biggest threat is not blizzards or snow, but 40-degree temperatures combined with rain or sleet. Precipitation with cold weather can force calf mortality higher, by as much as $10 \%$."

Parrett shares similar thoughts. "After calving it is critical to have calves in a dry,
draftless environment," he says. "Cold is not much of a concern unless the calves are wet. In fact, many calves are better off out of the barn if the temperature isn't too severe."

Parrett concurs that mud development during the spring must be monitored.
"Mud on a cow's udder during nursing can lead to calf scours, as can calves drinking out of mud holes," he says. "It is critical to allow calves access to a dry area away from the mud and confined cows."

To better protect cows from the elements, Schmitz encourages producers to also consider nutritional needs. "Precalving nutrition is an important strategy," he says. "If cows are in good condition, you have better luck utilizing your calving facilities."

Such facilities are also better used in the daytime. Parrett suggests feeding cows and heifers in the evening to encourage them to calve during the day.
"A cow that eats at night between 6 and 10 p.m. will digest food over several hours, settle down and begin to calve 8-10 hours after eating," he says. "Producers should begin night feeding about three or four weeks prior to calving season to get more daytime births."

## Stocking the calving barn

Producers should also consider whether any equipment is needed for the calving barn at least a month prior to calving. For starters, Virginia Tech's Hall says producers should have access to electricity and water to keep facilities clean and help prevent scours outbreaks.
"I usually tell producers to have a refrigerator with a freezer to store colostrum and also preserve injectables, such as selenium and vitamin E," he says.

Hall also encourages producers to evaluate wool calf blankets as an option, especially in more harsh calving environments. "Calf blankets are effective if your calves will keep them on in the field," he says. "From an aesthetics standpoint, polar fleece hoods or bonnets for calves can keep ears from freezing. That helps keep the calf dry and could help improve the salability of the calf, too."
"Blankets used during the coldest times of the year will prompt a measurable weight response in calves," adds North Dakota's Lardy. "That weight response and using blankets to help prevent cosmetic ear and tail losses are economic incentives for most purebred operators."
"The best advice I have for calving season is to use common sense," Hall says. "Take the time to get your facilities in order, review your calving assistance procedures and know when to intervene and when to wait."

