

Warm, Clean and Dry

Temporary and permanent shelters protect calves from tough winter weather.

by Heather Smith Thomas

Protecting calves from winter cold, moisture and wind — reducing stress and helping to prevent illness — doesn't have to be complicated or expensive.

A three-sided instant calf shelter can be made from big straw bales with mesh panels — like hog panels — around them to keep the cows from eating the outside surface, and a tarp roof supported by poles placed across the top (between the big straw bales) for rafters. Pole panels can be placed in front so the calves can get into the shelter, but cows cannot. This can be a very effective shelter in an emergency or whenever you don't have time to make a permanent structure, though the straw bale shelter is not very portable.

One Canadian rancher lets his cow-calf pairs into his barnyard during bad weather and has a feeding area where the calves can get into the barn like a creep and bed in some hay, and the cows can't get in.

There are also many designs for long-standing calf shelters and ways to build them with all kinds of materials.

“You can figure about 10 calves per shed, so you should provide enough sheds for the group — and move them around as needed. With scours being a concern with young calves it pays to give them as much space and clean bedding as is economical.”

— Joseph Darrington, Ph.D.,
South Dakota State University
agricultural engineer

Permanent and portable

A long, narrow shelter (8 by 16 feet) can house 15 or more calves. It can be built on wooden runners, enabling it to be moved to different locations, and the narrow width allows it to be pulled through gates. A sloping metal roof (higher in front) sheds rain and snow off the back. A slatted floor keeps calves out of mud or melting snow runoff that may flow across a field, yet allows urine to run down through it, and bedding stays drier. The floor also makes the house more durable and adds weight to the house, making it less vulnerable to strong wind.



Calves keep warm more easily if they're dry and out of the wind. Producers can get creative when it comes to providing shelters — from run-in sheds to large round bales and even upcycled school buses.

The front of this example shelter is partly closed, with an opening low enough to keep cows and cold breezes out. However, if cows have access to the opening, they may reach in to eat bedding or worry about their calves being inside the house. Cows congregating in front of a shelter also creates the risk of calves being stepped on or laid on. Some ranchers keep the area in front

of a shelter fenced off with portable panels or an electric wire high enough for calves to go under. Calves can come and go and lounge in bedding in front of the house on a sunny day, but the cows have no access.

Ron Skinner, a veterinarian and rancher near Hall, Mont., made skids and crosspieces for his calf shelters from 6-inch well casing obtained from a salvage business.

“We can push or drag these shelters anywhere and they won't break,” Skinner says. “The well casing is stiff enough to drag or push over frozen manure piles, and the top of the building won't flex. We used vertical metal pieces and framed it with angle iron, bolted boards to that and put on a metal roof.”

His calf houses don't have floors. If the ground or bedding starts to get dirty, he pushes the building to a new location when feeding cows.

“My tractor has forks on the loader for handling round bales, and I just slide the tines under the end of the hutch, pick it up a little

and slide it any direction,” Skinner says. “I roll a little straw off a round bale into the hutch after I move it, for new bedding.”

Many stockmen use some type of three-sided shed, like the super hutches in the dairy industry, with the opening facing to the south and away from cold winds. This also lets morning sun into the shelters.

Joseph Darrington, Ph.D., an agricultural engineer at South Dakota State University, says calves do all right in cold temperatures if they are out of the wind.

“Make sure you keep fresh bedding in shelters and have vents high on the side wall, end wall or roof ridge to allow for ventilation,” Darrington says. “If you are purchasing or constructing the sheds, it is important to have openings near the top so moist air can escape.”

For baby calves, make sure shelters stay clean to avoid contamination from scours; it helps if the shelters are on skids and portable. Then you can regularly move them to clean ground and put in fresh bedding. Provide enough sheds for the group — and move them around as needed.

“Calf hutches for dairy calves have about 12 to 15 square feet per animal and that's also a good rule of thumb for most beef calves; with that much space per animal the bedding doesn't get as dirty,” Darrington says.

“You can figure about 10 calves per shed, so you should provide enough sheds for the group — and move them around as needed,” Darrington explains. “With scours being a concern with young calves it pays to give them as much space and clean bedding as is economical.”

Grouping calves by age also reduces the risk of spreading scours through calf concentration. If the calves in one pasture are all about the same age, there are no older calves spreading scours to the younger ones. If the calves in each field are no more than a week apart in age, this decreases the spread of scours since the older calves in a group are often the ones that pass infections to the younger, more susceptible calves. Usually, none of the houses get very crowded if you have enough shelters for all calves in each field.

Situate shelters with openings away from prevailing wind. It's amazing how warm it can be inside, out of the wind, especially with the body heat of several calves. An advantage to congregating your calves is that they'll be snug and warm inside the houses.

Rancher creativity

Some ranchers recycle various materials to create calf shelters — everything from big culverts cut in half, to old grain bins and school buses, etc. Anything that can keep calves dry and out of the wind will work, and it's even better if the shelter is portable. In some cases, however, permanent shelters are just as good, especially if they are situated in good locations and can be cleaned out periodically.

About 30 years ago, a North Dakota rancher cheaply acquired two old school buses when the local school district determined they were no longer functional. He transformed them into calf houses by removing the floor, hood and engine. He fastened old oilfield pipe (2 $\frac{7}{8}$ inches in diameter) along the bottom sides of the bus to make it easier to pull around (like a big sled) with a tractor.

Calves enter the bus through the front opening where the hood and engine once were. Windows were left in the bus and can be opened if it gets too warm inside. The windows also provide plenty of light, and a person can see if there are any calves inside. Side and back doors are kept closed but can be used if a person needs to enter the shelter.

A few small square bales are put inside for bedding. When using these shelters, the rancher places a piece of plywood in the windshield area above the front opening and can slide it down to block the opening if he needs to catch and treat a calf inside the bus. **HW**