



Ward Off Winter

by Heather Smith Thomas

Those of us who calve during winter or early spring need some kind of shelter for the baby calves. On our Idaho ranch we were plagued with terrible calf scours when we calved in March and April. The weather was too wet and muddy.

We moved our calving back into January and early February to get away from the mud and slop, and have been calving in winter since 1969.

Calving when the ground is frozen instead of muddy has greatly decreased our incidence of scours. But it also necessitates providing adequate shelter for young calves.

Most of our calves arrive during a three week period in January. We have a very short 32-day breeding season. Often the weather is subzero, so most of our cows calve in the barn. We don't leave any pair in the barn more than 24 hours, however. Barn stalls are cleaned and rebedded between occupants.

The cow and calf go outside into a second day pen as soon as that calf has nursed, is dry, and its navel cord is drying up. We have a row of second day pens next to the barn and each of these pens has a sheltered windbreak corner bedded with straw. The calves quickly learn to use those sheltered corners. These pens help the calf make the transition from barn to field.

Many calves just aren't ready to be out in the field at 24 hours of age; mama usually tries to lead them to the far end of the field and hide them in a snowbank. But after spending some time in the second day pens, the calf is older and wiser and more apt to use the little calf houses we have in every field.

We built our first calf house in 1968, and since have built many more using the same basic design. Each of these long, narrow shelters, (16 x 8 feet) can

house about 20 to 30 calves and is built on wooden runners so it can be moved to a different location if necessary.

Each shelter has a sloping galvanized metal roof (higher in front) and a floor. Having a floor is very important because it keeps the calves up out of the mud or melting snow runoff that often flows across our fields. The floor is slatted so urine runs on through and the bedding stays drier. The floor also makes the shelters much more durable—they hold together better when moved—and adds weight so that the house cannot be blown over by strong winds.

The front of the house is partially closed, with the opening low enough to keep cows out. Cows will still reach in to eat the bedding or worry about their calves; a calf can be stepped on or laid on if too many cows congregate in front of the house. We always have an electric fence wire at a height calves can get un-



A calf house designed with wooden pole panels in front to keep the mother cows from eating the bedding or stepping on newborn calves.

der but not the cows, or panels to keep the cows back from the lounging area in front of each house. Calves can go in and out or lie in front of the houses on dry bedding, without interference from cows.

During the early years of using the calf houses we worried about concentrating the calves this way, fearing that it might make for more disease. We moved the houses periodically to new, clean locations. But we've found this is really not much of a problem and no longer move the houses. We just put clean bedding in them every few days.

Disease is kept to a minimum when the weather is cold and ground is frozen. Having a dry, clean place for calves to bed in cold or wet weather is much more important than worrying about concentrating those calves in a small area. The calves stay pretty healthy if they don't have the extra stress from being wet and chilled.

We situate the houses with their opening away from the prevailing wind direction. It's surprising how warm it can be in these little houses, especially with the body heat of several calves inside. Calves



Calf shelters should have a sloping roof, slatted floor with straw bedding, and an opening away from wind.

learn fast about using these shelters. On a wet or windy day or a cold night, all the calves will be snug inside; during bad weather they may come out only to nurse and then go right back in again.

Even during the severe winters of 1978-79, 1983-84, and the "Siberian Express" — with wind chill equivalent to 100 below zero here in our valley — in February 1989, the calves came through just fine. We lost ears and tail tips off

some of the cows during those extremes of weather, but not on the calves — they were in their calf houses.

We've never lost a calf to bad weather. I'm sure it's mainly because we have adequate shelter for those babies and we make sure they know how to use it.

Editor's Note: For calf shelter plans and more information on how to build one, contact your local Extension office.

Winterized Barns Aid Livestock Birthing

Cold temperatures combined with drafts in a barn can be a troublemaker for producers raising calves says Dexter Johnson, Extension agricultural engineer at South Dakota State University.

Cold temperatures alone can be tolerated to some degree, but they're among the stresses that affect health, like poor nutrition, excess dampness, cold drafts and crowded conditions.

Johnson recommends placing several thermometers at different levels and in different barn spaces to monitor temperatures.

Dry bedding is useful to reduce animal heat loss. Although it's a chore to provide a dry, bedded, resting area, bedding helps reduce body heat loss, draftiness and damp floors. Straw is typically used, however, shredded newsprint is being adapted. Straw "banking" around the outside of the foundation helps reduce floor heat and foundation heat losses.

Drafts in barns come in around windows, doors and fans. A second or "storm" window and door helps cut down heat losses at these sources. A tight-fitting piece of insulation board in the window is most effective, Johnson says.

A 4- by 4- by 8-foot or such size of entryway walkway in front of barn walk-in doors helps reduce direct blasts of cold air into the barn when the door is opened. Plywood sheets or corrugated metal on a framework is a practical way to do this.

Ventilation fans are another source of cold drafts. Shutting off the power to fans used only in hot weather, placing board insulation over their outside and batt insulation over the inside and sealing over with plastic sheeting for the winter are good practices to follow.

The backdraft louvers on the one or more small fans that

must operate in winter for moisture control need to be free to open and close again when the fan shuts off temporarily. A hood or other windbreak near the fan exhaust helps to reduce strong wind effects that force cold air into the fan and barn.

An 8-inch by 2-foot wide duct on the inside over winter exhaust fans also aids this and is used to draw cooler exhaust air from near the floor level when the fan operates.

Johnson says to be sure fans and controls are clean, lubricated and protected from electric overload. Ventilation failures can be disastrous. Fresh air is a major nutrient.

Inlets for letting fresh air for ventilation need to be adjusted for lower, winter-airflow ventilation rates. Direct incoming fresh air along the ceiling to help barn air mixing. Fresh air should travel 25 to 40 feet from inlets to the exhaust fan so it absorbs maximum moisture and not only heat.

Supplemental heat is necessary to keep barn temperatures above freezing in subzero weather. Heater types that provide hot air are best for drying and aiding barn air circulation. Radiant type heat is best used for warming animals (not air) in a localized area. Avoid directing radiant heat at manure gutters, slotted floors and waterers as this heat increases moisture evaporation, Johnson advises.

More complete information about barn ventilation, heating, insulation and troubleshooting is explained in three different booklets available from your local Extension office: MWPS-32, "Mechanical Ventilating Systems for Livestock Barns" — \$6; MWPS-33, "Natural Ventilating Systems for Livestock Barns" — \$5; and MWPS-34, "Heating, Cooling and Tempering Air for Livestock Barns" — \$6.

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