Ward Off Winter

With All- Weather Calving Facilities

by Heather Smith Thomas

Fickle weather during the normal spring calving months was enough to convince us to start breeding our cows to calve in January and February. Since we made that decision 28 years ago we have experienced less calf sickness and disease on our Idaho ranch.

If you are set up for it, cold weather is a blessing rather than an enemy Once a calf is dry, he can handle cold weather much better than wet changeable weather, and he stays healthier. Cold weather is the best management factor in keeping sanitary conditions. It eliminates mud and keeps manure frozen, reducing filth, contamination and sickness.

Winter-time calving requires extra calving facilities but, with a little planning and ingenuity, you can build or renovate barns or sheds at minimum cost and labor.

We first converted an old garage and shop into a calving barn and used several old sheds for the cows with new babies. Over the years we expanded our calving facilities. Now we have enough shelter for newborns and young calves, even during extended cold weather and severe storms.

Calving Barns

Our original garage calving barn had stalls for six pairs, but we could make nine by putting in more panels and making the stalls smaller. That wasn't enough space, however, when we were calving 10 to 15 cows a day (90 percent of our cows calve during the first three weeks of calving season). We had to move pairs out too soon to make room for new ones.

To solve that problem, we built another barn behind the old one, adding a pen area between them. This gave us total stall space for 19 pairs. The new barn is also tall enough to use for machinery when we are not calving, and can be cleaned out with a tractor and blade.

Our bigger calving barn was built inexpensively with tall posts set deep in the ground for the main support structure. We used rough lumber for the walls and added a metal roof. It has a row of windows to let

This calving barn was designed and built to stand up against Idaho's toughest winters. It has four rows of stalls and a sloping roof with strategically located windows to gather extra solar heat and light.

solar light and heat in. The inside partitions and panels are made of strong, 2-inch thick boards.

There is no wasted space inside the barn. Rather than having a center alley, each row of stalls is itself an alley as the stalls are made with movable panels. We prefer to have the panels tied in place rather than permanently hinged, for there are times we want to make a stall larger or smaller, or move a panel during calving.

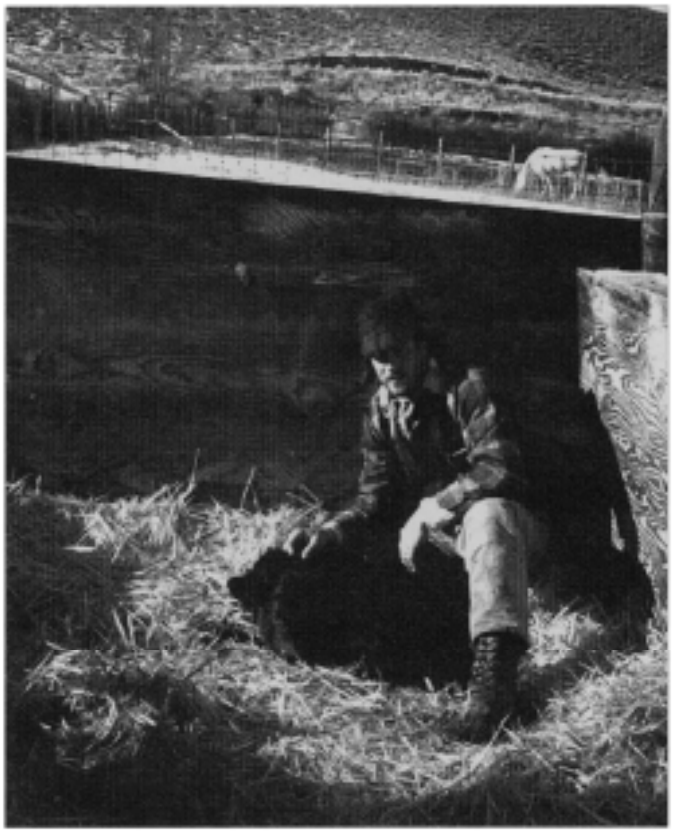
If a cow is in labor and lying tight up against the panel or stall corner, we can move one end of the panel or remove it completely, if necessary, to give the cow and her newborn calf more room, or to give us more room to assist in the case of a difficult delivery.

The panels are also handy if we need to restrain a cow temporarily. We may tie up a cow if we have to pull a backward calf, but for most problems we just catch the cow or heifer behind the swinging panel, push it tight against her and use a rope behind her (holding the panel) so she can't back out of this makeshift chute. Then we can correct the malpresentation or pull the calf, and swing the panel away when we are finished. If the cow does go down, she's not a problem like she would be in a headcatcher or chute; we simply move the panel away from her.

We occasionally have a cow that is too flighty or cantankerous to restrain easily for calving or for helping a calf nurse. In these instances we use our headcatcher located in the pen between the two barns. We find more use for the headcatcher outside the barn, such as in our second-day pens. At our ranch colostrum is collected and frozen for emergencies. So the headcatcher comes in handy for milking out the occasional extra full udder before a cow-calf pair is kicked out to the field.

In the newer barn we have four rows of stalls. The barn is just four wide aisles divided into stalls by movable panels. The panels are solid on the bottom half so a calf cannot stick its head through and get bashed by the cow in the next stall. There is a side panel in each aisle for shuttling a pair or an expectant cow into another row of stalls if need be.

For instance, when we empty the barn, all pairs usually go out at the same time. We rarely confine our cow-calf pairs more than 24 hours. If for some reason, however, there is one that should stay in longer and she is in front of a cow that should come out, we can bring the outcoming cow through the side panel into the next row of stalls without disturbing the pair that stays in.



Solid plywood board windbreak corners in this second-day outside pen at the Thomas Ranch help protect calves from north winds and bad weather.

With two barns we also can stagger the stall emptying and re-bedding process. We empty each barn once a day, but not necessarily at the same time. Usually one barn is full of calves born during the day and the other barn has the night arrivals. In the morning we empty the barn with the oldest, driest calves. Then we can quickly clean the barn with tractor and blade and bed each stall again in preparation for the next arrivals.

This is all done without disturbing the new babies in the other barn — those which are just getting up or trying to nurse, or the cows still in labor, or even the new heifer mamas learning about motherhood.

We use lots of straw. If stalls are clean and dry we experience less problems with calf sickness. We used to have trouble with navel ill when we calved outside in the spring because our fields and pastures were so contaminated after 120 years of continuous livestock use. But now that we calve in clean bedded stalls and iodine each newborn's navel several times during the first 24 hours, also making sure they are dry before the calf goes outside, we have eliminated the navel ill problem.

Clean stalls and clean pens are crucial. It's healthier for the cow if she doesn't have to calve in a dirty place, and for the calf if he doesn't have to suck a dirty udder. We also never put a sick calf in our calving barns. Keep a separate pen or barn for the unhealthy calves and you will decrease the chance of a disease outbreak.

For many years we had no heating stoves in our calving barns. The calves stayed reasonably warm with the cows' body heat. The temperature in the barn rarely dropped below 15 degrees F., even if it was 20 below outside. But when it drops to 30 or 40 below, which happens in Idaho, an extra heat source is wise.

We tried a propane heater in one stall, and also spent extra time towel drying calves. Eventually, we put stoves in each barn to keep it from dropping lower than 20 degrees F. inside. This seems to be the borderline temperature for a wet newborn. Vigorous calves which get right up and suck and are thoroughly licked by their mothers are fine at this temperature, or even a little colder. But if a calf is slow to get up, or not licked off well, he can become too cold to nurse and his ears and tail can freeze.

Second-day Pens

After a few years of winter calving, we realized we needed more shelter for newborns during their first 48 hours. We built a long row of second-day pens next to the barns where we can put pairs for another day or two before they go to the fields. Now we don't have to put any calf out into the snowy fields until he's ready for it.

The new calf, even after it's dry, has an immature "thermostat" and may have trouble maintaining body temperature in cold weather. He's easily chilled and stressed. He does much better after he's a couple days old. He is also smarter by then, and will seek

a dry place to sleep. The newborn, by contrast, will often end up in a snowbank and get chilled.

If you turn the cow-calf pair out too soon, the cow will usually take her baby to the far corner of the field to hide him, and he may end up in the snow or mud. But the two- or three-day-old calf will realize that's not a good idea, and will find some hay or straw or a dry place to lie on; he's not as apt to let his mama hide him behind a snowdrift. He will remember the straw he snuggled into earlier and will stay at the shelter. The second-day pens teach the calf about straw and shelter.

Our pens are handy and accessible to the barns. We can drive along the other side of the long row and put feed into the pens or add new straw for bedding.

The cow-calf pairs are watered from a hydrant located by the calving barn; each cow has her own rubber water tub in her pen. The hydrant is also handy for watering each stall inside the barns.

The second-day pens, being outdoors and larger than the barn stalls, don't get very dirty. Cold weather keeps the manure frozen and we keep fresh bedding in the sheltered corners. We only clean these pens once a year — at the end of calving season.

The second-day pens are made with portable panels that can be swung aside for cleaning with tractor and blade. There is a windbreak corner in each pen, created by two sheets of plywood. Actually there is shelter on three sides, since the windbreak from one pen serves as a windbreak on the backside of the next pen.

Calves quickly learn to use the sunny sheltered corners bedded with straw. The plywood reflects the solar heat. A calf can be warm and comfortable, out of the wind, even on a blustery day. At night the calves bed down in the corners and the cows usually lie in front of their calves, keeping them warm, tucked between their bodies and the corner.

These second-day pens are ideal "half-way houses" for calves that are ready to come out of the barn but not quite ready for the field. Giving the calf another day alone with its mother also eliminates mix-ups and confusion, especially among first-calf heifers.

Calf Houses

Calf shelters have also been added to each of our fields, with approximately one house for every 20 calves. These have calf-size doorways located away from the prevailing winds and are bedded with fresh straw.

Pole panels or electric wire keep the cows away from the shelter entrance; the calves can lounge in the sunshine on dry bedding next to the house without the cows eating the bedding or crowding them out.

When weather is cold or stormy the calves spend most of their time in the houses, coming out only to nurse. This cuts down on excess stress and sickness. The calves quickly learn that the calf houses are the driest, warmest places in the field.

It's amazing how warm it can be in the houses, out of the wind, especially with the body heat of several calves. Even during the severe Idaho winters of 1978-79 (40 below when we started calving), 1983-84 (sub-zero all through January), and the Siberian Express in early February 1989 (when the wind chill was 100 below zero for five days), we didn't lose any calves, nor freeze any ears on the babies. A number of our cows lost their ears, but the sheltered calves did fine.

My husband designed and built our first calf house in 1968 and we built several more soon after. Each house is 16 x 8 feet, with a sloping metal roof and a slatted floor. The floor keeps calves up out of the mud or melting snow run-off, and also gives the structure more weight and stability; it will never blow over in a strong wind.

We originally added wooden runners to our calf houses to make them portable. And they were built long and narrow to go through gates. But during the past 15 years we've left them in permanent locations. We've found that when the ground is frozen, and new bedding put in regularly, the houses and surrounding area don't get contaminated.

We believe keeping clean bedding is more important than moving the shelters to new locations.

Shelter and protection from weather stress greatly outweigh any problems caused by congregating the calves. Our calves are kept in small groups (no more than 35 to 40 pairs per field) and grouped according to age. We never mix older calves with younger ones which might be more vulnerable to scours or disease.

If you do plan to move calf houses, put a few small boards under the runners. Then you can easily pry the runners loose from the frozen ground with a bar when you hook onto the house with a pickup or tractor. Otherwise the runners freeze down solid, making it hard to move the shelters.

MORE INNOVATIVE IDEAS

Calving barns and shelters can be made from a variety of materials, even large straw bales. Some Western ranchers use rows of large bales as windbreaks, or even as sheds, They line up a row of bales for each wall and put a roof on top. The straw or hay serves as good insulation.

A calving barn can also be created inexpensively by converting an old hay shed or some other unused building.

One Alberta rancher made a nice calving facility from a 20-year-old, 20-foot tall pole hay shed. He took the roof down in pieces and sawed the poles off to a height of 8 feet.

He spent only $3,000 on materials to finish this barn. Materials used included rough-cut lumber, beams and chipboard sheets. Wood shavings were placed between the sheets to serve as insulation. The outside wall was covered with rough-cut slabs to protect the chipboard from weather. The most expensive part of the barn was the tin roof, but it will last forever.

Economical calf shelters can be made from old metal silos, as well. By cutting a silo apart and bending the sections, you can make several miniature "Quonset" huts for calves.

One rancher I know used a 45-foot high by 25-foot diameter silo to make 10 calf houses and still had enough metal left to make 10 more. His shelters are mounted on treated timber skids and cross-braced with planks across the bottom.

There are many ways to create winter calving facilities. What you ultimately develop for your own operation will depend on the materials available, your winters and how you handle your cows. Ideas can always be adapted to fit your own unique situation. The main thing is to have adequate shelter for newborns and young calves during bad weather, and a good place to work with cows that require calving assistance.

There's nothing more frustrating than losing a calf because you don't have good facilities or protection By providing-the necessary shelter, calving season can be a dream instead of a nightmare.