

WHAT SHOULD HAPPEN



PHOTO BY SHAUNA HERMEL

Know what's supposed to happen during calving so you know if something is wrong.

Story & photo by Kasey Brown, associate editor

There are few things more wonderful than new life. However, getting that new life into the world can have its challenges — from size problems to malpresentations. Providing assistance in a cow's time of need can make the difference in whether cow and calf finish the process alive. However, to understand if something is wrong, we need to first know what is supposed to happen.

"Calving ease is one of the great success stories of the beef industry," says Kansas State University Extension Beef Veterinarian and Assistant Professor AJ Tarpoff, noting calving ease direct (CED) expected progeny differences

(EPDs) as selection tools have helped the industry significantly.

In addition to calving ease EPDs, he adds five other keys to successful calving management: nutrition, environment, genetic selection, stress management and vaccination.

Set cows up

The environment plays a big role in calving success. The time of year for calving comes down to economics, but "calf-sicles" require much more management if you choose to calve in winter. Tarpoff adamantly recommends providing a wind shelter for cows, but adds that it needs to be kept clean or moved throughout the pasture during calving season. When cows congregate in one area, that area gets contaminated.

The solution to pollution is dilution, he says, and suggests the Sandhills Calving System. This system moves the pregnant cows

to clean and uncontaminated environments every two weeks or so. Calves with new immune systems don't have to fight environmental pathogens, which usually result in scours.

Stage 1 parturition

"What we see of Stage 1 of calving is just the tip of the iceberg," Tarpoff says.

The cervix starts to relax and dilate, caused by hormones and uterine contractions. The uterus contracts, causing the fetus to rotate and put mechanical pressure on the cervix with its legs and head. There's also hydraulic pressure of the water bag that presses against the cervix.

The pelvis relaxes and widens. Some cows may even look postlegged because of the relaxed pelvis. The vulva may look

elongated and swollen.

Tarpoff explains that if a calf is breech, or backward, then the mechanical pressure isn't correct and the cervix doesn't dilate all of the way.

Stage 1 is complete when the water bag breaks. It usually takes a few hours, and cows may exhibit discomfort, go off feed or separate themselves.

Because so much of Stage 1 is unseen to the human eye, stress can impact it immensely. Heifers especially can be stressed by humans — to the point of stopping parturition entirely.

Tarpoff adds that “bagging up” is not an actual sign of Stage 1. That happens days ahead of calving.

Stage 2 parturition

Stage 2 is the action stage, says Tarpoff. Delivery of the calf starts with the breaking of the water bag and is completed with the delivery of the calf. It usually lasts between 30 minutes for cows and can be up to two hours in heifers.

“A rule of thumb to examine a cow or heifer who hasn't made any progress is two hours for heifers



and one hour on cows,” he says. “However, progress is key.”

For instance, if you're feeding hay and see a cow with a foot hanging out, just keep feeding. Check back once you're finished to see if progress has been made.

On the inside during Stage 2, Tarpoff explains, the water bag breaks, uterine contractions increase and the calf enters the birth canal. On the outside, we see that the dam might lay down or keeps going up or down out of discomfort. We'll see obvious straining and contractions, the expulsion of the water bag, and the appearance and delivery of the calf.

Fig. 1: An anterior presentation



SOURCE: *Calving Time Management for Beef Cows and Heifers*, Oklahoma State University Animal Science Department and Oklahoma Cooperative Extension Service.

Stage 3 parturition

The often-forgotten stage 3 includes passing the placenta. It starts following the delivery of the calf and ends with the expulsion of the placenta, which has the “buttons” or placentomes.

The dam is focused on “mothering up” while she's continuing to have uterine contractions.

Tarpoff says the placenta should pass within 30 minutes, but it could take up to 12 hours before passing. Managing a retained placenta becomes a pathologic

issue, and controlling infection is key.

Do not manually remove the placenta, and do not peel those attachments, he urges.

If she starts to smell, if she shows depression, is off feed, or is slow and clumsy, then intervention — namely antimicrobials — is needed.

Postpartum considerations

After a successful birth, the job's not done. Getting the newborn calf to breathe is the immediate concern. Tarpoff suggests cleaning out the mouth and nose, sitting the calf up on its sternum, and rubbing it vigorously with a towel to mimic the dam's tongue. You can also tickle the calf's nose or even pinch the inside of it to stimulate breathing.

Do not hang the calf upside down, he warns. Any fluid that comes out of the mouth is from the stomach. When the calf is upside down, the lungs can't expand because there is more pressure on the diaphragm.

After breathing, colostrum is of utmost importance. From this, a calf gets antibodies, fat, vitamins and white blood cells. A calf should consume about 10% of its body weight by 24 hours, which is about 3-4 liters of colostrum. The calf is born with a fully functional immune system, but like a muscle, it needs to be used to function.

Absorption time is extremely limited. Antibodies are big particles that have to leach through the gut wall. The gut wall is not fully closed at birth, but starts closing about six hours after birth. The gut has closed by about 50% at nine hours after birth.

Without colostrum antibodies, a calf is 6.4 times more likely to get sick as a neonate, usually with scours. Tarpoff adds that same calf is 3.2 times more likely to be sick preweaning, often with pneumonia.

That miraculous new life might come easily, or it might come with complications. Read “Troubleshoot Calving” to learn more about dealing with difficult births. |

Rock'n D Ranch

WITH DYNAMITE FARMS

Spring Bull Session

1 PM SAT., MARCH 9, 2019

at the Ranch near Junction City, Oregon
Lunch served at 11:30

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View Our Offering Online at: www.rocknd-ranch.net
Pam Detering
 541-913-2128 or 541-998-2796
 rocknbulld@gmail.com
Donald Fleckenstein
 971-219-6729 • dynamite.farms@gmail.com

