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## **Know When and How to Intervene with Difficult Calving**

What can you learn from three garbage bags, a car ramp and a stillborn calf? A lot, when Dr. Floron “Buddy” Faries and Dr. Joe Paschal of Texas AgriLife Extension Service demonstrate calving, using these items as teaching tools in their “*Assisting with Difficult Calving*” seminar, which will be featured at the upcoming ICA convention in College Station Wednesday morning, June 9. In a tag-team approach, Dr. Faries, professor and Extension program leader for veterinary medicine, and Dr. Paschal, professor and Extension livestock specialist and an ICA director emeritus, intertwine humor with demonstration and practical advice, providing entertaining and invaluable information on managing the herd for easier calving, and how and when to help a heifer—or cow—if difficulties occur.

### ***Don't rely only on good looks and youth!***

A majority of calving problems in first-calf heifers can be avoided if you select the proper bull, says Dr. Paschal. “Younger, smaller bulls don't guarantee lighter, easier-to-deliver calves. Calving ease records are the best predictor, followed by birth weight records. Calving ease can be expressed as a score, or if an EPD is available, it is expressed as a percentage of easy calving. Calving ease statistics factor in not only birth weight, but also the size and shape of the calf, and most importantly, unassisted births by first-calf heifers. For first-calf heifers, select bulls with the highest calving ease numbers,” he said.

“Although virgin bulls won't have progeny records, the purebred bull breeder should have calving ease statistics for the herd. In addition, breed associations publish or provide these statistics as an average EPD for the breed,” he said.

### ***Give first-calf heifers a head start!***

“A heifer may be capable of breeding, but may not be mature enough to calve easily. To be most profitable, ranchers need a heifer than can carry, deliver, recover and re-breed quickly. A heifer that's too lightweight or too young will experience more serious calving problems, and the animal will require a longer recovery time before re-cycling. Sometimes, a heifer can be so injured during calving, she may never re-breed,” Dr. Faries explained.

Before breeding, first-calf heifers should have at least 65 percent of their mature body weight—around 775 pounds for a mature cow weight of 1,200 pounds--and they should be at least 14 to 15 months of age. By the time they calve, these animals should weigh 1,100 pounds, or 90 percent of their mature weight. Although interesting, knowing the heifers' internal pelvic dimensions is not a solid predictor of the animal's calving ability, Dr. Paschal said. The measurements may be used as a guide to culling heifers that are much smaller than the yearling average of about 140 square centimeters, or 160 square centimeters for 14-month-olds.

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## **ADD ONE/Assisting with Difficult Calving**

Dr. Paschal urged ranchers to breed first-calf heifers at least 30 days before the cows are bred. “The first-calf heifers will require more attention, and full attention can be paid to assisting them. These young mommas are still growing, and they also just had a calf and lost a couple of teeth. Any time or nutritional help we can give them increases their chances of re-breeding and returning to the herd the next breeding season,” he said.

During pregnancy, keep an eye on the body condition of heifers and cows. “Cows should have no more than the last two ribs showing, but to aid in calving, the first-calf heifers should not have any ribs visible,” he said. “Body condition changes should be in a positive direction that reflect good nutrition. If heifers and cows lose body condition, it can spell trouble in calving, milking and re-breeding.”

### ***Round ‘em up!***

Pregnant heifers and cows will develop a brown mucous plug, indicating that calving will occur in about 10 days to 2 weeks. Dr. Paschal said first-calf heifers should be moved at this time to a small trap or a pen, where they can be observed several times a day, and easily accessed, if they need assistance or a trip to the vet.

As springers, the heifers and cows will have a mucous discharge. Heifers will develop a mature udder, and both cows and heifers may exhibit a relaxed rear end and swelling of the vulva, said Dr. Faries. With labor imminent, the animals should be checked at least three times a day, to ensure that they are not in distress.

Dr. Faries explained that the birthing process, or parturition, has three stages. In the first stage, the animals will stop grazing, isolate themselves and become agitated and restless as the uterus contracts and the calf enters the birth canal. Visible signs of labor usually are not apparent in this stage.

“Check on the animals frequently during this time. Stage 1 (pre-labor) should continue 2 to 6 hours, and never more than 8 hours,” said Dr. Faries. “In the meantime, notify your veterinarian, in case professional assistance is needed. You should assemble the tools you may need for delivery, including plenty of fresh water, at least two buckets, disinfected obstetrical chains, disinfectant, vegetable shortening or petroleum jelly, and gloves (optional). If she’s not in a pen, this is a good time to move the animal to a confined space, where she can be assisted, if necessary.”

“In stage 2 (labor), which should last no more than 4 hours, the placenta sac (the water bag or first fetal membrane) will rupture. The heifer or cow may kick, bellow, grunt and defecate. Quietly check on her hourly, if not more, and note any progress, which could include a bubble, the rupturing of the placenta sac (breaking of her water), or the calf’s nose and feet protruding from the birth canal,” he said.

If she has a bubble (the amniotic sac or second fetal membrane) distended for two hours, or if the calf’s nose and feet are seen without progress in an hour, or if the calf’s head and feet are protruding, it is time to intervene and assist, explained Dr. Faries. When the calf’s head or shoulders and the legs are protruding, its chest is under compression in the birth canal, and unless it moves through the passage expediently, the stress could kill the calf.

“Prior to assisting, you’ve got to disinfect your hands and arms, the equipment, and the backside and tail of the heifer or cow, or you’ll put her at risk for serious infection,” said Dr. Faries. “Then determine the problem. Can you push on the tail head? If the muscles are too tight, the calf is not going to be expelled, and she’ll need a C-section. If the calf’s nose or feet are not presented, can you reach into the vagina and feel the fetus? Is the fetus in a normal position, with the feet and head in a normal presentation? If the head is turned back, or if the feet are tucked under, and you can’t turn these body parts into the appropriate position, a vet is needed as soon as possible.”

“Decide when you will stop and make the call to your vet,” said Dr. Faries. “Don’t risk losing the calf and the heifer or cow.”

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## **ADD ONE/Assisting with Difficult Calving**

### ***Up, Up, Up! Down, Down, Down!***

“If you can deliver the calf, don’t rush it, unless the calf’s umbilical cord or chest is compressed,” he explained. In the seminar, Dr. Faries illustrates the delivery techniques, using the three large plastic bags, each inside the other. The innermost bags represents the amniotic sack and placenta, which holds the stillborn calf used in the demonstration, and the outside bag replicates the uterus and birth canal. The entire package is slanted on the car ramp.

“The uterus and birth canal are on an upward slope,” he said. “The calf always must be walked out in an upward motion, with only one leg pulled at a time. When the shoulders are fully exposed, initiate a downward motion. If needed, disinfected obstetrical chains can be looped above the calf’s front ankles, with a half-hitch below the ankle bones, to reduce the risk of fracturing a limb. To avoid injury, do not pull a calf straight out, and never pull on both legs at the same time,” he said.

“Never apply more than more than 400 pounds of pulling power, or about the strength of two men. If you drag the heifer, you’re pulling too hard,” he said.

In the seminar, Dr. Faries spurs on the audience to chant with him, “up, up, up! down, down down!” as he demonstrates the calving technique, pulling first one leg, then the other of the stillborn calf, along with the second inner bag (amniotic sac), through the trash bag birth canal that has been liberally lubricated with vegetable shortening to prevent internal tearing.

“If, after 30 minutes, you cannot delivery the calf using this method, you must obtain a veterinarian’s assistance immediately, or you risk losing the dam and calf,” said Dr. Faries. “However, if you are successful, now it is time to check the calf.”

Ensure the calf has a clear airway by wiping away any excess mucous. Vigorously rub the back of the calf to stimulate breathing. Once the calf is stable, treat the calf’s umbilicus with a minimum 2 percent iodine to prevent infection. Also, ensure the calf drinks 1 to 2 quarts of colostrum, preferably by nursing, or if it is too weak, by a stomach tube, with the amounts provided in two or three feedings during the first six hours.

“Finally, check the birth canal of the dam for any excessive tearing or bruising that may require a veterinarian’s care. The third stage of parturition will follow and involves expulsion of the first inner bag, or the placenta. Do not pull on this tissue, as it is tightly attached. Allow the cow to naturally expel this material,” said Dr. Faries.

Dr. Faries’ AgriLife Extension fact sheet on “*Assisting in Difficult Calving*” is available in English or Spanish and is posted on the ICA web site at: <http://icatexas.com/>. If you do not have internet access, call the ICA office at 512-620-0162 for a copy to be mailed or faxed to you.

More information on the upcoming ICA convention and trade show information is posted on the ICA web site at <http://icatexas.com/>. Materials and registration forms also are available by fax, mail or email by calling the ICA office in Lockhart at 512-620-0162.