

DYSTOCIA (DIFFICULT BIRTH) عسر الولادة

Dystocia: more commonly known as difficult birth, is a problem most dairy producers encounter.

Consequences range from the need for increased producer attention to the loss of the cow and calf.

Dystocia is a leading cause of calf death at or shortly after birth and leads to uterine infections, more retained placentas, and longer calving intervals.

The most common causes of dystocia are:

1. Small cow trying to give birth to a large calf. First calf heifers experience problems twice as often as older cows since they usually are not full grown, however, even large heifers experience problems because they have never before given birth.
2. Bull calves, being larger, cause more problems than heifers.
3. Cows calving in winter are more likely to experience dystocia than those calving in summer, probably because of lack of exercise.
4. Multiple births and mal-presentations of the calf both increase the likelihood of dystocia.
5. There is also a genetic component controlling the incidence of dystocia.
6. However, heritability estimates for dystocia, whether measured as a trait of the calf or a trait of the dam are low, ranging from 5 to 15%.
7. Calves are usually born with few problems but may become small cows which have trouble giving birth. For this reason, do not select

service sires for heifers strictly on the size of their calves but on their record of dystocia as well.

Consequently, the best **method of reducing dystocia** is through good management practices.

1. Feed Properly

Feed cows and heifers to calve in good condition without being fat because fat cows tend to experience more calving problems.

Keep heifers growing so they are large enough to breed at 15 months in order to calve at 24 months.

If grown properly, heifers can deliver a calf sired by the same breed with little difficulty.

2. Maternity Area

Do not overlook the importance of the maternity area to a successful calving. Provide a clean dry, well ventilated space for the maternity area to minimize the possibility of the calf becoming infected with disease organisms.

Do not leave cows in a stanchion or tie stall to calve. Calves often drown under such conditions and the cow has only limited freedom of movement which may result in injury during calving.

3. Regardless of the parity (number of calving):

Regardless of the parity of the cow, mortality rates are lower for calves that are easy pulls than for unassisted births.

If the cervix has not had sufficient time to dilate, forcing the calf can seriously injure the cow and cause undue stress to the calf. Heifers spend more time in labor and more time giving birth than mature cows.

Labor commences with the onset of uterine contractions and dilation of the cervix. Contractions initially occur approximately every 15 minutes. As labor

continues, contractions become stronger and more frequent and the cervix expands to the point that the uterus and vagina form a continuous canal.

The end of labor and the beginning of delivery (expulsion of the fetus) is marked by the release of the allantoic fluid from the vulva.

Mature cows may need as long as 4 hours and heifers 6 hours to deliver a calf once labor commences.

A normal delivery starts with the front feet presented first, followed by the head, shoulders, hips and hind legs. The calf should be oriented with its back up at all times.

When Problems Develop

Two symptoms of dystocia are extended calving periods (over 8 hours) and evidence that the fetus is not oriented properly for a normal birth.

If the cow has not delivered in the specified time or the calf is malpresented, veterinary assistance is often indicated. If there is reason to suspect a problem, the individual examining the cow should observe strict sanitation practices.

These include tying up the tail, thoroughly cleaning the cow's vulva and anal area and the examiner's hands and arms with clean warm water, soap and an antiseptic.

A sterile plastic sleeve also should be worn to avoid contamination of the reproductive tract.

Malpresentation may be indicated by an extended labor (over 6 hours) or if the calf is not presented in the manner previously described. Any other presentation is abnormal.

Malpresentations occur randomly in about 2% of all births for both cows and heifers with 95% requiring some type of assistance.

Some malpresentations can be resolved by pushing the fetus back in and reorienting it. Only an experienced herdsman or veterinarian, using sterile

techniques, should attempt this. If there is any doubt about being able to correct the malpresentation, call a veterinarian immediately.

If the calf is pulled, it should be pulled in rhythm with the cow's contractions and should be pulled out and down to avoid injury to the cow. A common error is to think that a little pulling is all that is needed and this goes on until the cow wears herself out.

If pulling is to no avail, then mechanical pullers may be used conservatively. Call a veterinarian as soon as a problem is detected and before the cow is exhausted and the calf is dead.

Neonatal Calf Care

1. Following birth, clear the calf's mouth and nostrils of mucus and be sure it is breathing properly.
2. Often a finger inserted into one nostril and rotated is enough to initiate breathing.
3. If not, the lungs may have to be cleared of fluid by hanging the calf by the hind legs and letting the lungs drain.
4. Dip the navel in iodine to prevent infection.

Feed colostrum as soon as possible, and definitely within the first three hours after birth, to provide immunity against infection.

5. A calf should receive approximately 4½-5% of its body weight in colostrum during the first 24 hours following birth.

Select Service Sires for Heifers

Approximately 10% of the variation in dystocia scores is genetics related, thus some reduction of dystocia problems is possible by selecting service sires with low dystocia evaluations, especially for mating to first calf heifers.

The National Association of Animal Breeders (NAAB) publishes genetic evaluations for Holstein A.I. sires in the U.S., ranking them for the ease with which their calves are born. Two measures are used.

The first is “probability of being better than average”. This estimate takes into account (1) his estimated transmitting ability and (2) how accurately his transmitting ability has been established.

A probability of 9% indicates that there is only a 9% chance that a bull’s calves will be born with less difficulty on average than calves of an average bull. The sire with the highest probability is the best choice.

The second estimate is the percentage “expected difficulty for first calving”. An estimate of 13% means that 13% of a bull’s calves born to first calf heifers experience some difficulty at birth. Bulls with an estimate of 10% or lower should be used on heifers with which you expect there may be some dystocia problems at calving. Bulls are not currently evaluated for the calving performance of their daughters.

How to Avoid Dystocia

1. Feed heifers to calve with adequate size at 24 months and cows so that they are in good flesh to calve once a year but not over conditioned.
2. Provide a clean, dry, well ventilated and accessible maternity area.
3. Observe the calving.
4. Give the cow adequate time to prepare herself for delivery.
5. Observe strict sanitation procedures when examining a cow.
6. Know your limitations and call for veterinary assistance when trouble occurs and before the cow becomes exhausted.
7. Provide good neonatal calf care.
8. Select service sires for heifers with calving ease proofs of 10% or less.