



# Minimising Calving Difficulties

Calving difficulties (dystocia) contribute heavily to production losses. The obvious ones are due to death at, or soon after calving, but studies from the USA have shown that calves which experience difficult births, are four times more likely to be born dead or die within the first 24 hours of life compared to those born without difficulty.

“The obvious losses are due to calves or cows that die at, or soon after, calving”

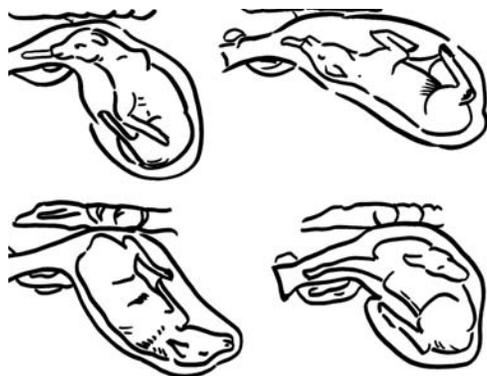
Less noticeable losses due to calving difficulties include:

- Delayed return to heat.
- Poor conception rates and subsequent high empty rates and extended herd calving patterns.
- Labour, vet and treatment costs increase as more difficulties are encountered.
- Occasional calving problems are unavoidable. Working to minimise dystocia by careful management and selection of genetics will help to improve calf survival rates and the profitability of your herd.



## DYSTOCIA

Dystocia is defined as a difficult or delayed birth at any stage of labour.



Many factors influence the incidence of dystocia, but broadly they can be split into two groups:

### FACTORS AFFECTING CALF SIZE AND SHAPE:

- A. Calf birth weight
- B. Breed and genetics of sire
- C. Position/presentation in the uterus

### FACTORS AFFECTING THE ABILITY OF THE COW TO GIVE BIRTH:

- A. Cow's pelvic area
- B. Age and breed of cow
- C. Nutrition and condition

### GENETICS

#### Estimated breeding value (EBV)

The heritability of calving ease is fairly low so genetic solutions are not straightforward.

Calving ease is also influenced by management, feeding and season of calving, hence it can be hard to predict in an individual animal.

However, calving ease can be improved by comparing information from different sources, including:

- The animal's own records for calving ease.
- Its contemporaries in the herd.
- Relatives in other herds.
- The animal's and relatives' genetic merit for other recorded traits (e.g. birth weights, 200 day weight, 400 day weight, gestation length, muscle score and muscle depth). This will improve the accuracy of the animal's calving ease EBV and birth weight EBV.

These can then be used as tools in reducing the incidence of dystocia along with other physical performance traits to maximise the productivity of your herd.



#### Recommendations for reducing dystocia

1. Mate bulling heifers and small cows to easy-calving bulls. Always use Jersey bulls (ideally yearlings) over heifers where possible.
2. Consider the breed, estimated birth weight variation, actual birth weight, gestation length and physical stature of the bull.
3. Aim to calve heifers at 90% of their expected mature bodyweight.
4. Monitor body condition score (BCS) and target calving cows to be in BCS 5.0 at calving. Aim to lose no more than 0.5 BCS throughout the production cycle.
5. Do not try to limit feed prior to calving as it will limit cow nutrition and can actually increase calving problems as underfed cows will struggle to progress through a normal calving despite having a lighter calf. Cows should enter the dry period in the correct BCS, if too fat or thin then dystocia can result. The time to make changes to BCS is late lactation, hence the importance of regular body condition scoring of the cows.
6. Consider measuring pelvic area in replacement heifers and culling those that are too small if your herd has had problems. Target pelvic area sizes will vary from one breed to the next. As a rule of thumb heifers of medium sized breeds should have pelvises of at least 160cm<sup>2</sup> at breeding, larger breeds 180 cm<sup>2</sup> or more.
7. Consider carefully whether



daughters of cows that have suffered dystocia should be kept as replacement animals, as some causes of dystocia may be partly hereditary, e.g. narrow pelvis.

8. Aim to calve heifers 7-21 days prior to the planned start of calving adult cows. It will allow more observation of heifers and allow them time to resume cycling prior to mating.
9. Feeding the herd later in the day could encourage more cows to calve in daylight.
10. Keep a record of calving ease for calves you observe born. If this changes over time consider reasons for this.
11. Ensure assisted calves are bought into the sheds as soon as possible. Studies have shown that this improves their chance of survival rather than being left out doors in the immediate period post calving. If housing is limited these calves should be top priority.

For more information contact your local XLVets practice:

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