

NEWSLETTER

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Seasonal reminders:

- Do not let cattle graze country with significant amounts of heliotrope. Heliotrope damages the liver and cattle are affected months and even years later.
- Watch out for heat stress in early autumn calving cows. Cows with milk fever are not able to regulate their temperature and will overheat on a hot day. Throw buckets of water on these cows to help them cool down.



- Calves born in hot weather are especially susceptible to dehydration. Sick or scouring calves need extra attention in hot weather.

New Genetic Disease: Early Onset Muscle Weakness Syndrome (MW)

A new genetic disorder was recently identified within the Holstein breed. This genetic condition has now been named Early Onset Muscle Weakness Syndrome (MW). It was previously known as calf recumbency.

MW is a genetic disorder that affects Holstein calves' ability to stand. Calves affected by MW are unable to stand at birth or lose the ability to stand shortly after birth. Some affected may recover, but most do not survive beyond 6 weeks of age. The genetic disease has been traced back to a Roylane Socra Robust and his son Seagull-Bay Supersire. It is likely that more animals will be identified as further testing is carried out.

It is unclear what the population frequency is of MW, however it is thought likely to be present in all AI breeding programs to some degree. A gene test has been developed using research by scientists at Penn State University that can identify carrier animals, but a haplotype test is not yet available through the Council on Dairy Cattle Breeding (CDCB). The likely causative mutation in the CACNA1S gene on chromosome 16. It appears to be a recent mutation within a very common Holstein haplotype. The CACNA1S gene provides instructions for making the main piece (subunit) of a structure called a calcium channel. Channels containing the CACNA1S protein are found in muscles used for movement (skeletal muscles). These skeletal muscle calcium channels play a key role in muscle contraction. The defect results in weakness and/or paralysis. The affected calves must be homozygous for the condition to be present.

From a clinical perspective, the condition would be difficult to distinguish from a weak calf after a protracted birth, a traumatic injury to

the calf at or shortly after birth or other congenital condition. At this point in time, our vets have not seen any suspected cases.

Managing calves after difficult calvings

A check list to follow when pulling calves to try and reduce the number of deaths includes:

- Remove the membranes from the muzzle of the calf
- Remove mucous and fluid from the mouth by using your fingers to scoop it out
- Sit the calf up on its sternum/chest with the hind feet pointing towards the ears (recovery position)



- Never hang a calf up by its back legs or swing it around*
- Stimulate the calf by rubbing the calf with a dry towel (cold water on back of head/ small amount in the ear can also stimulate the calf)
- The calf should take a breath within 30 sec (stimulate the calf to breathe by, pinching the nose, placing your finger or a piece of grass/straw in the nose, rubbing the calf's head and chest with towels)
- Check for broken ribs or limbs
- The calf should lift its head by itself within 5 minutes
- The calf should be able to maintain the sitting position by itself within 15 minutes
- Check for congenital defects i.e. umbilical hernia, mouth defects
- Dip or spray the umbilical cord with iodine or chlorhexidine with 30 minutes of birth
- The calf should stand within 2 hours
- Correctly id and record the calf and dam
- Ensure adequate colostrum intake

* Traditionally, after a calf was born it was hung up by its back feet. It was thought to remove fluid from the calf lungs. However, some of this fluid is

from the mouth and lung regions, however the majority comes from the stomach of the calf, which does not need to be removed. The main concern with hanging a calf up by the back legs is that the calf is unable to take the deep breath that is required to correctly inflate the lungs with air (abdominal content puts pressure on diaphragm and lungs).

Phantom cows – What are they?



Phantom cows are cows that do not return to oestrus after insemination and subsequently not detected pregnant at preg testing. Meaning, that it appears that the cow conceived at insemination and therefore does not cycle again but the cow is not actually pregnant. In Australian dairy herds, up to 13% of cows can become phantom cows each season.

The cause of the syndrome is thought to be multifactorial:

- Management issue (failure to detect oestrus)
- Loss of pregnancy (very soon after insemination)
- Relapse into anoestrus
- Reproductive pathology (cystic ovaries, pyometra/ mucometra and other pathologies)

Risk factors for a cow to become a phantom cow include:

- First calving cows
- Older cows
- Extended period between calving and first service
- Cows that experienced retained foetal membranes at last calving

- Reduced milk protein concentration

Diagnosis of phantom cows is generally made at pregnancy testing/ diagnosis when a cow is thought to be pregnant because she has not been cycling but is empty.

Prevention of phantom cows is focused on reducing the risk factors listed previously and, on some farms, improved heat detection is required.

Early herd pregnancy testing would also be recommended to detect the phantom cows early and therefore intervention can be made to hopefully get the cows in calf to the current breeding season.

Pregnancy loss in Dairy cattle

A recent Australian study looked at the level of pregnancy loss occurring in dairy herds. The study involved 1149 cows that were diagnosed pregnant at day 35 post insemination. These cows were then re-ultrasound twice at 60-day intervals to assess if pregnancy loss had occurred.

It was found the 90 cows (7.8%) lost their pregnancy between 35 days (5 weeks) and 161 days (23 weeks).

Some risk factors for pregnancy loss that were found in this study included:

- Cows producing much less than 30L or much greater than 30L were at greater risk than those cows producing about 30L
- Cows experiencing mastitis after they have become pregnant
- Cows in lower body condition score at mating

To reduce pregnancy losses, it should be aimed to maintain herd health and body condition.

From this research data and our experience at least a second preg test/ diagnosis should be carried out before drying off occurs.