

## Managing Down Cows

Down cows are one of the most difficult issues to manage during calving season. They are often time consuming and frustrating particularly when the outcome is poor. The biggest role in successfully getting a down cow up is the nursing care. If grade 1 or 2 standards of nursing (see below) cannot be met the chance of a good outcome is extremely poor.

**Before the calving season begins it is advised to set up an area for downer cow management.** If a grade 1 nursing area is already constructed prior to the first downer cow then dealing with her will be quicker, easier and hopefully less frustrating or disruptive to the day.

Attached are notes taken from the Dairy Australia website. Please visit the website and watch the informative downer cow videos produced by down cow specialist Dr Phillip Poulton.

([www.dairyaustralia.com.au](http://www.dairyaustralia.com.au) → Animal Management → Animal Welfare → Cows → Managing down cows.

<http://www.dairyaustralia.com.au/Animal-management/Animal-welfare/Cow-welfare/Managing-downer-cows.aspx>)

For more complete notes on the following section please refer to the attached Dairy Australia Handouts.

### **WHAT TO DO WHEN YOU FIND A DOWN COW?**

- **Check the environment:** cows should not be left;
  - on hard surfaces, on slopes with their head downhill;
  - on their side especially if bloating;
  - in excessive heat or cold;
  - somewhere dangerous such as within close proximity to electric fences and creeks.
- **Establish the correct cause of her being down:** veterinary assistance may be required for an accurate diagnosis and will help determine the treatment plan. Euthanasia may be the only option (eg broken leg) and should be performed as soon as possible to minimise suffering.
- **Treat the problem:** If the cow has a reasonable chance of recovery AND if you/your farmhands have the time and energy to provide the required level of nursing care. Treat the primary cause promptly.
- **Monitor regularly:** Downer cows should be monitored regularly – how regularly will depend on the cow's condition.
  - Non alert cows should be checked within 2-4 hours for improvement.
  - Alert cows should be checked every 8-12 hours (no longer).
- **Minimise secondary damage by getting her on her feet:** This may require hip lifters or a sling. If she cannot be lifted, minimise the risk of secondary damage by moving her to your nursing area and moving other cows so she cannot be bullied.

- **On a daily basis:**
  - The cow should be reassessed for her response to treatment of the primary condition.
  - Reassess the diagnosis, treat secondary damage, provide nursing care, lift or where appropriate humanly euthanase.

### **WHEN SHOULD EUTHANASIA BE CONSIDERED?**

Cows should not be left to suffer. If any of the following criteria is met then their welfare is at risk and euthanasia is warranted.

- Incurable conditions including fractures or tendon rupture.
- Poor response to treatment within an acceptable time frame.
- Alert cows becoming non alert. This indicates further complications are present.
- Cows lying on their side because they can't or wont sit upright.
- Pain and suffering.
- Not eating or drinking.
- Bed sores or swollen joints.
- If there is not enough labour, time or adequate nursing facilities to provide the grade 1 or 2 standard of care needed.

### **NURSING A DOWNER COW**

As mentioned earlier nursing down cows **properly** requires a lot of labour and time.

#### **Nursing requirements:**

- Clean, dry, soft bedding. Non slip surface.
- Supply clean water and good feed.
- Every four to six hours the cow should be rolled from side to side. Each time she is rolled the legs should be bent and stretched 5-10 times.
- Strip the udder regularly and check for mastitis.
- Try and encourage the cow to rise.
- Lift her to her feet using lifters/sling. **Do not** leave her unattended while she is suspended.
- Reassess her condition daily.

Once a cow is down, no matter the initial cause, there is a significant possibility they will suffer nerve damage and muscle breakdown with secondary kidney disease. Other potential issues include dislocated hips, pneumonia and mastitis. For these reasons we must get the cows up as soon as possible and manage them to limit the amount of secondary damage.

Good nursing and management is therefore extremely important as getting these cows up sooner will significantly reduce the amount of secondary damage.

#### **Nursing key factors:**

##### **Cow comfort**

Although it is most convenient to nurse the cow where she goes down in the paddock this is not ideal for the cow and gives her a poor prognosis for recovery. The ground is often hard and cold and she will likely be exposed to unfavourable weather. Cold weather reduces circulation to the legs and this decrease her chances of getting up.

**Cows should be nursed in a shed on clean, soft, dry bedding (400mm of deep straw/hay/sawdust/rices hulls).** Bedding may need to be changed and faeces removed regularly.

**The area should have barriers to keep her on a small area of bedding. This will prevent crawling or stumbling** which often leads to femoral nerve damage or potential hip dislocation.

**Barriers** can be made from gates or square bails which can be easily removed. If she can stand when lifted but cannot walk, the area should be big enough for her to stand but not turn around. If a cow can stand when lifted, two calves could be put in the pen to milk her out. Once she can stand and walk she can be let out on a non slip surface.

Ad lib water and enough fibre and energy should be provided.

### Rolling

Each time the cow is checked the leg she is lying on should be noted. If she is on the same leg next time she is checked she should be rolled to allow circulation to the underside leg, reducing the risk of nerve damage. Rolling should be performed every 4-6 hours.

### Lifting

**Lifting should only be done if it is EFFECTIVE and SUPERVISED.** A cow that is lifted ineffectively has a worse chance of recovery than one that is not lifted at all. The cow should be lifted to be able to stand in a normal position and take some weight. She should NOT BE HANGING. She should be supervised as she may tire and should be placed down straight away. Hip clamps or slings are suitable for lifting but both have pros and cons.

### Hobbles

Hobbling the hind legs can reduce the risk of dislocated hips and other secondary issues. They should be applied above the hocks or fetlocks with the rope long enough to allow the cow to stand but not overreach. They should be padded.

### Electrostimulation

No, not a prodder!! The use of electrostimulation or aquapuncture (fluid injections) in down cows has been shown to aid and speed up their recovery in many cases. The stimulation helps the body release its own anti-inflammatories as well as stimulating muscles to contract and release. This will aid blood flow around the legs as well as nerve activation. This service is available through the clinic. Please contact reception if you wish to discuss this option.

### **Moving a Recumbent Cow**

Cows tend not to go down in a shed or the allocated down cow nursing area so you generally need to move her there. It is important that during movement we do not cause any further damage. The safest ways are:

- Load her onto a carry-all
- Load her into a front-end loader bucket
- Carry her in a sling
- Hip clamps can only be used to move a cow over short distance and the cow must be supported with a belt or strap under the chest.

Her head should be restrained to prevent damage.

DO NOT move a downer cow by:

- Hip clamps only. The hips are not designed to support the cow's whole weight alone!!
- Dragging - only use if there are no alternatives and the cow needs to be urgently moved over a

short distance. Use slow steady pressure and avoid jerking movement. Dragging slowly by a halter around the head is safer and more humane than dragging by the legs.

## **THE FACTS**

The following statistics are taken from a recent study out of Leongatha with thanks to Dr Phil Poulton. These are included to help highlight the importance of nursing quality as the key factor in down cow recovery. If an adequate standard of nursing cannot be met then the cow should be humanely euthanased to prevent suffering.

84% of downer cows have secondary damage. 80% of these have **significant** damage.

In the study, of the down cows that died 13% were from primary cause, 75% were from secondary damage, 13% were from a combination of both.

The quality of nursing plays the most important role in downer cow management. This can be scored from grade 1 (excellent) to grade 4 (very poor). Grade 1 and 2 are the ONLY satisfactory nursing environments to manage a down cow.

Examples of grades of bedding include the following:

Grade 1: small area, deep bedding, confined

Grade 2: paddock nursing, this is ok some of the time in mild conditions with soft ground.

Grade 3: hard surfaces such as sheds or gravel

Grade 4: very hard surface where cows are allowed to crawl around unrestrained and are rarely checked.

Studies in Leongatha region show the following recovery rates

	Day 7	Eventual
Grade 1	33%	45%
Grade 2	31%	41%
Grade 3	8%	8%
Grade 4	0%	0%

Of cows nursed at grade 3 or 4 standards for longer than 7 days – **0% recovered**. 40% of cows nursed at grade 1 or 2 recovered. Some cows will take 2-3 weeks to get up but only if in a good nursing environment.

Femoral nerve damage is not uncommon following difficult calvings. With femoral nerve damage the hind legs lie flat out behind the cow in a frog-legged position. Femoral nerve damage is also a common *secondary* issue seen in 28% of down cows. 68% of milk fever cases end up with femoral nerve damage which is commonly caused by the cow crawling around.

As with the general nursing of down cows, the nursing grade for cows with femoral nerve damage is very important. At day 7 the number of recovered cows are shown below.

	Grade 1 femoral nerve damage	Grade 2 femoral nerve damage
Grade 1	61%	62%

Grade 2	43%	43%
Grade 3	20%	0%
Grade 4	0%	0%