

Managing wet soils

Grazing of waterlogged paddocks can result in serious 'pugging' damage to pastures and soils.

This damage can reduce pasture utilisation by up to 50 per cent, and reduce pasture yields by 20–80 per cent over the following four to eight months. Further, these conditions can increase the likelihood of animal health problems such as lameness, mastitis and magnesium deficiencies. Some low cost practical management strategies that will reduce the impact of pugging are detailed in this fact sheet.

'On-off' grazing

This is the most practical and effective grazing strategy for most farms during prolonged wet conditions. Cows are grazed on an area of pasture for a limited time, usually two to four hours, and then moved to a standoff area such as a 'sacrifice paddock' or other hard standing area for the rest of the day. To be successful, enough tall and dense pasture (e.g. 2,500–3,000 kg DM/ha) needs to be allocated to the herd to enable high and rapid pasture intakes. Cows will usually consume 70 per cent of their daytime pasture intake in the first two hours of grazing and 77 per cent – 88 per cent after four hours. Pugging damage is usually comparatively minor after four hours, with the bulk of the damage occurring four to ten hours after the start of grazing.

Other grazing techniques

There are a range of other grazing strategies which used in combination can reduce the risk of pugging damage. These include:

- scheduling the day and night feeds separately by allocating about two thirds of the 24 hour allocation of pasture for the day and a third for the night. Cows rest more and walk less at night.
- grazing the paddocks from the back first using a temporary sacrifice laneway constructed using electric fencing to stop cows walking over the front of the paddock.

KEY MESSAGES

Pugging damage to pastures should be minimised wherever possible

'On-off' grazing of pastures is an effective and easy to implement strategy

Cows can be confined on a 'sacrifice paddock', a feed pad, a purpose built containment area or other drier areas for part of the day to limit the amount of damage done and protect the pasture base of the farm

Cows should be moved off pasture after a maximum of four hours grazing

Supplements can be used as a tool to ensure that cows are fully fed and to enable a slow grazing rotation to be maintained

Avoid the temptation to speed up the grazing rotation

Be aware of the increased risks of mastitis, lameness and magnesium deficiencies in the herd

- back fencing off previously grazed areas wherever possible. The more times a wet soil is walked over the greater the damage to pasture and soil structure.
- considering shifting the fence on the allocated grazing area two to three times during the day.
- using different gateways to put cows on and off the paddock if possible.
- allocating the pasture to be grazed in square or rectangular blocks rather than long, narrow strips.
- slowing the grazing rotation to match pasture growth rates. Aim to have cows going into plenty of pasture (e.g. at least 2,500 to 300 kg DM/ha) and leave post grazing heights of 4–6 cm between clumps.
- avoiding the temptation to speed up the planned rotation length. Stick to the plan.
- grazing paddocks that are likely to have a wet soil problem early in the season.

Sacrifice paddocks and standoff areas

Some form of standoff area is required for 'on-off' grazing when cows are taken off the paddock. A 'sacrifice paddock' is the simplest and a low cost option suitable for most farms.

Ideally this should be a paddock with better drained soils on higher parts of the landscape, with run down pasture requiring renovation and away from waterways. Other areas that can be used to stand cows off on include:

- laneways: should only be regarded as a short term option as significant damage to the track surface can occur
- feedpads and the dairy yard: cows should have room to lie down requiring at least 3.5 m²/cow, or 5 m²/cow if cows are on them for more than two days
- purpose built containment areas or loafing pads

Supplementary feeding strategies

Supplements should be used in wet conditions as a tool to help maintain a slow grazing rotation and ensure cows are fully fed, especially during prolonged wet periods. Well-fed cows cause less pugging damage as they are more content and do less walking around the paddock. Where possible, feed supplements in the dairy, on the feedpad or other standoff areas. If feeding in the paddock, put out the feed before the cows enter the paddock and if small amounts are being fed, feed it under an electric wire.

Animal health

Prolonged wet and muddy conditions place the herd under additional stress. Increased stocking rates in sacrifice paddocks can increase the risk of mastitis, lameness and magnesium deficiency. Keep a close eye on all stock and treat any conditions as soon as possible.

Further online reading

Managing wet soils package – Agriculture Victoria

Wet weather management – DairyNZ

Managing pugging damage – DairyNZ

Managing in wet conditions – Dairy Australia

FOR FURTHER INFORMATION

Please visit feed.dairyaustralia.com.au