

SILAGE AND Paddock MANAGEMENT IN WET WEATHER

In some regions, extended wet periods can result in many pastures becoming long and rank, due to an inability to graze or cut these paddocks during this time. This affects the quality of the silage produced and the ability of these paddocks to recover. Decision making is not straight forward in these situations, but the aim should be to make the best quality silage from the material available and manage the paddock moving forward to have the least impact on the pasture in the longer term.

CONSIDERATIONS WHEN CUTTING SILAGE

- ✓ Produce silage with the highest nutritional value possible given the tough conditions
- ✓ Give consideration to how pastures will be managed and regrowth after cutting
- ✓ Maintain grazing residuals to 4–6cm as much as possible



Producing nutritionally high quality silage

Although pastures may be longer than desired for silage cutting in a wet winter/spring, best management principles still hold. The aim is to make the best quality silage from the pastures that are available, accepting that the pastures may already have a reduced quality.

At this time of the year, digestibility is dropping 3–5% and protein 1–3 units every 7–10 days. So if paddock damage is avoidable, cutting earlier with only a small amount of rain damage will produce a better quality silage than cutting later after forage quality has dropped.

In very wet weather conditions, cutting silage early to maximise quality is often not an option, however even in wet conditions it is recommended to still follow these steps to making high quality silage as closely as you can.

- 1 Cut as early as is possible while limiting damaging the paddocks.
- 2 Ted or use a mower conditioner to speed up the wilting process.
- 3 Harvest into a stack or bale within three days of cutting if possible. Forage dry matter should range from 30–38% for stack or pit silage and 40–50% for bales.
- 4 Aim for densely compacted bales and a tightly rolled pit. Chop the forage short and layer thinly in the pit and roll until compacted. Seal bales and pits airtight as soon as possible after harvest.
- 5 If harvest is interrupted by rain, move bales to an undercover area if possible to wrap so that the seal is airtight. Cover the pit in plastic until harvest can continue and consider if further silage is going to be of poorer quality, sealing this stack and starting another one.
- 6 Label and store bales in quality groupings so that they are easily identifiable for feeding to different classes of stock.

These practices will ensure you make the best quality silage you can from the pasture you started with.

In long rank pastures, beyond canopy closure, sunlight does not reach the base of the plant and the growing point moves up the stem. These pastures tend to thin out as tillers weaken and die without sunlight and no new tillers are generated. Some ryegrass tillers form seed heads and these move up the stem also.

Cutting these pastures down to 5cm removes the growing point, reducing tiller and plant density. The green leaves can be so high off the ground that often almost all the green leaf is removed even if the mower is set to higher cutting settings, leaving a 'white' paddock after mowing. These pastures risk ongoing viability and persistence challenges and the risk of weed infestation is higher post harvest.

THREE OPTIONS EXIST FOR MANAGING THE RESULTANT PADDOCKS AFTER SILAGE IS CUT

The state of the paddock will influence what management is the best option for the paddock

- 1 Manage pastures to regenerate and increase density
- 2 Summer crop and renovate in the autumn - seek advice from an agronomist
- 3 Do nothing, most likely not the best option this season as good moisture exists

1 Manage pastures to increase density and persistence

Newly sown pastures with newer varieties and better potential and paddocks that have irrigation or enough soil moisture to encourage growth will be in this category. Recovery of the paddock depends on daughter tillers forming that are strong enough to develop from remaining energy reserves in the parent tiller.

It takes a few days after mowing for the plants to start growing from remaining living tillers and daughter tillers, hence the window of normally up to 3 days after mowing, to harvest the silage. After harvest, stay out of these paddocks for about another 10–14 days, (this includes heavy machinery and cows) or until it is looking green again and tillers have formed.

After 10–14 days off the paddock, if moisture is available, apply an appropriate fertiliser mix (nitrogen and potassium) and wait until the paddock is 2.5 leaves before grazing. Maintain a grazing residual of 4–6cm throughout the summer if possible.

In paddocks where significant aerial tillering has occurred before you have been able to cut, but you have irrigation or are comfortable that there is moisture for growth for the foreseeable future, you may choose to cut (or graze) the paddocks twice. Cutting the paddock to 5cm may cause the sward to thin out and die so aiming to achieve a 5cm residual over two rotations is appropriate. The first cut of silage or grazing would be at 10–12cm, after this fertilise and grow out to 2.5 leaf stage and then re-cut or graze to 5cm, and then fertilise again. Cutting or grazing to 12cm leaves some green material in the paddock to help regenerate tillers before the paddock is cut again. Maintain a grazing residual of 4–6cm if possible.

2 Summer crop and renovate in the autumn

Where pastures have become long and rank, and pasture base thinning is extensive or lower performing varieties exist, consider renovation through summer cropping and autumn renovation, or over-sowing. With the higher than usual soil moisture conditions if it has been too wet to cut silage, summer cropping options could be considered. This is also a good option for paddocks that may have been heavily pugged or damaged by grazing animals earlier in spring. Talk to an advisor regarding crop options, establishment and management as well as pasture cultivars that best suit your situation.

3 Leave paddocks as they are—do nothing

These paddocks will be dryer paddocks generally and the decision of what to do on these paddocks may be deferred until the autumn. If the soil moisture level is high, doing nothing may not be the best option if there is potential for good growth later in spring and the paddock is very badly damaged, you won't capitalise on this as well as you should in normal circumstances. Paddocks with any level of soil moisture will continue to grow so give paddocks the best opportunity to thicken and tiller. Maintain grazing residuals of 4–6cm on these paddocks throughout the summer if possible.

Summary

In summary, as a result of the excessive wet conditions, silage quality will be reduced and perennial ryegrass paddocks will be compromised. Managing paddocks to regenerate the perennial ryegrass is essential, however if the pasture base has been thinned out too much, or significant damage to the soil has occurred, then summer cropping and autumn renovation, or over-sowing may be the best option. Maintaining a grazing residual of 4–6cm throughout is the best management for the pasture.