

Multi-cut grass silage

Helping you get the most from your grass silage making practice



volac 

Cut to Clamp 

A Volac initiative

Volac Interactive PDF

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Moving to Multi-cut

With the drive to maximise milk (and meat) from forage by making better quality silage, the multi-cut approach - of cutting grass while younger and taking more cuts per season - is becoming increasingly popular.

Benefits of Multi-cut

- Younger grass offers higher metabolisable energy (ME) - because it's more digestible (since it contains more leaf material and less stem)
- Protein content is likely to be higher
- There's potential for higher silage intakes - because silage that's more digestible won't spend as long in the rumen, so cows can eat more of it
- Frequent cutting can actually give a better total grass yield over the season



Survey reveals shift to more progressive grass silage-making practice

Trends towards more progressive grass silage-making practices identified in a new dairy farmer survey should help UK producers improve milk from forage performance, but care is needed to ensure producers maximise the benefits.

This was the joint message from Germinal and Volac at a briefing on the results of a new multi-cut grass silage-making survey, which points to the increasing popularity of taking first cuts earlier and making more frequent subsequent cuts.

Read more about these survey findings [here](#)

Following the results of this latest survey, Volac and Germinal have developed a 10 point multi-cut grass silage checklist, designed to help you get the most from your grass silage making process.



Multi-cut grass silage 10-point checklist



Plan ahead

- Consult your contractor or review your own equipment
- Consider clamp capacity and/or bale storage area
- Set targets for timing, tonnage and quality
- Test soils and slurry over the winter period



Reseed to maintain leys fit for purpose

- Maintain high sown species content and ground cover
- Grow mixtures with high yielding varieties, good spring growth and high ME yield/ha
- Only select varieties from Recommended Grass & Clover Lists (RGCL) 



Over-winter swards with optimum cover

- Remove autumn grazing stock by end of December with sward height at 4-5cm
- Walk silage fields to check drainage, mole damage and weed content
- Apply slurry into the soil, not onto the sward, to a maximum of 25,000l/ha



Ensure correct crop nutrition

- Avoid heavy slurry applications within 10 weeks of cutting
- Apply any slurry into the soil immediately fields are cleared
- Apply bagged fertiliser as recommended by an agronomist but not exceeding 2 units/acre for each growing day between cuts



Cut early and frequently

- Take first cuts late April - early May (depending on season and location) to maximise ME yield
- Take subsequent cuts at intervals of 4 to 5 weeks to maintain quality
- Mow no lower than 6.5 cm to ensure rapid regrowth



Wilt quickly for optimum dry matter

- Cut early in the day with a mower with an effective integral conditioner
- Ted out the crop within two hours to maximise speed of drying



- Aim to pick up the same day for a target 28 - 32% DM silage

Apply a proven silage additive to improve fermentation

- Because protein and nitrates may be higher – which buffer the fermentation
- Select an additive containing the most efficient fermentation bacteria



Chop long to maintain structural fibre

- Consider a chop length of 5cm or longer for good clamp management
- The typical chop length of a forage wagon can work well with multi-cut



Ensile for the best possible fermentation

- Apply best practice approach when clamping or baling
- Roll or compact to squeeze out air
- Seal effectively to maintain airtight conditions
- Ensile in layers to maximise compaction



Feed fibre as needed to balance rations

- Ensure sufficient 'scratch factor' for optimum rumen function
- Consult your nutritionist to maximise value of higher energy grass silage

Multi-cut hints & tips for our 6 simple steps

We've developed multi-cut hints and tips for each of the six steps of Cut to Clamp. Click on the steps below to find out more.

Cutting

Timing is key. Aim for optimum balance of yield and quality

Tip: Consider crop type and maturity, weather conditions, contractor availability and farm pressures.

Wilting

A rapid wilt will maximise silage quality, minimise fermentation losses and improve animal performance.

Tip: Leaving grass to wilt also reduces haulage.

Harvesting

The correct chop length is crucial as it affects clamp consolidation as well as animal performance & health.

Tip: Aim for a chop length of 15-25mm on grass above 30% DM.

Treating

Applying a silage inoculant is quick and easy to do and will pay dividends later in improved silage quality and reduced DM losses.

Tip: Choose an inoculant with independent proof that it works.

Clamping

Good consolidation and effective sealing to minimise exposure to air are key.

Tip: Side sheets, an oxygen barrier film and plenty of sheet overlap will help ensure the clamp is air tight.

Feeding

Good clamp management now is vital to reduce aerobic spoilage and DM losses.

Tip: Use a shear grab to keep the face tight and tidy as this helps reduce air penetration.



Before you switch to multi-cut, start by making sure your contractor (or any other labour required) will be available. Typically, first-cut silage may have been taken around mid-May, depending on location. But multi-cut could take that well into April, especially further south.

When it comes to cutting, avoid cutting too low. Remember, you want rapid regrowth, because you'll be cutting again in a few weeks' time.

Remember also, when reducing cutting intervals to maybe 4-5 weeks, regrowth will require less nitrogen fertiliser than if cutting every 6 weeks or so.

Plus, it's also vital to stop slurry contamination.

Leave a long enough interval between applying slurry and each cutting date (including before first cut). And never surface spread the

slurry. Instead, inject it. Failing that, use a trailing shoe.

Another advantage of cutting grass at a younger growth stage is that it can reduce silage variability across the clamp face.

With standard cutting, half the field might be in head when cutting and the rest not. Even the process of chopping and moving it won't mix it enough, and it can take days to get across big clamps at feed-out. Each day effectively therefore becomes a different ration. And variability costs milk yield.



As with conventionally-made silage, the aim for multi-cut silage is still to wilt as rapidly as possible to 28-32% DM.

However, with multi-cut, the wilting time needed to reach 28-32% DM can be much shorter.

That's partly because the yield of individual cuts will be lighter (less bulk to lose water from), but also because younger grass contains more leaf and less stem material, and leaves lose moisture much faster.

That can be a real bonus in showery weather. But take care not to over-wilt. Make regular checks on dry matter levels.

If silage is made too dry, it becomes prone to losses through heating caused by aerobic spoilage.

Note: Multi-cut is sometimes likened to the Dutch system of making silage where they do make higher dry matters. But they are geared up for this, and often have narrow clamps, so can move across the face quicker to help reduce aerobic losses.



Although cutting grass younger has the benefit of it being more digestible (and providing more metabolisable energy), the slight downside is that it's lower in fibre.

Which means it can be more prone to slipping in the clamp.

As a result, chop length at harvesting may need to be longer when making multi-cut than when cutting older grass crops.

As an example, for a 75 D value silage at 30% DM, consider a 5cm chop length to help hold it in the clamp.

This can also help it stay in the rumen slightly longer, allowing the cow to extract better nutritional value.



Although the higher protein content of younger-cut grass is a benefit, nutritionally, it can make the silage more difficult to ferment. Especially since younger grass can also be lower in sugar.

Consequently, the argument for treating with a high-quality additive, to boost fermentation and therefore better preserve nutrients, becomes even stronger.

Here's the explanation...

Sugars tend to be lower in younger-cut grass because they accumulate as the plant develops, and a younger plant simply hasn't had as long to produce them. The problem is, sugars provide the 'fuel' for fermentation - being converted into beneficial (lactic) acid that preserves ('pickles') the grass into silage.

Protein, on the other hand, tends to be higher in younger grass because the plant has already assimilated nitrogen into protein, but this hasn't been 'diluted' yet by further growth.

Unfortunately, this higher protein

tends to buffer the fermentation - in other words, neutralise some of the beneficial acid - especially once the protein starts to break down.

So, not only can the acid needed to preserve the silage be in shorter supply, but it can be 'neutralised' to some degree by the higher protein.

Adding a high-quality additive, such as Ecosyl, delivers proven 'good' bacteria into the silage, specially selected to deliver a fast, efficient fermentation. In this way, as much lactic acid is produced in as short a time as possible (rapid pH fall) before the protein exerts its full buffering effects.

Note: The cost of additive treatment per cut is likely to be lower with a multi-cut system, because individual cuts will weigh less, and an additive is applied per tonne.



A useful benefit from cutting grass while it's younger and contains less stem materials is that it's easier to consolidate in the clamp.

However, that's no excuse for cutting corners. The same rule applies about filling in layers a maximum of 15cm deep.

Machinery-wise, a good piece of equipment for loading the clamp is a push-off buckrake. This helps maintain an even layer as you drive up the clamp, making it easier to consistently achieve the correct 15cm layer depth.



When feeding multi-cut silage, the key point is to correctly balance the ration.

Be mindful of its potential to deliver higher protein, which may be greater than you think. To assess protein accurately, have a wet silage analysis conducted.

If you don't have an accurate analysis, and end up feeding excess protein, it has to be excreted by the animal as urea. This takes energy and fertility can fall.

There is also a slight chance of higher nitrate levels in earlier-cut grass - though because farmers have cut back on nitrate fertilisers over the last few years, this may well

be less of a risk. Nevertheless, the effects of feeding high nitrates from silage could also be exacerbated if feeding urea-treated cereal.

In addition, ensure you feed the right amount of fibre.

Although having a lower stem content and higher leaf content in the grass is helpful for wilting and consolidation, it is likely to mean a lower fibre content in the silage, compared with later-cut grass. Therefore, extra fibre may have to be added to the diet.

Cut to Clamp – a Volac initiative

Cut to Clamp is a new initiative from Volac, which aims to raise the profile of good silage as a vital part of modern farming, showing how it can really make a difference to overall farm efficiency and profitability.

To find out more about our 6 stages of silage making, download our Cut to Clamp e-book or visit www.cuttoclamp.com



Silage consultation

As part of the Cut to Clamp programme Volac are offering free on farm consultations with a silage expert.

First we will need a silage sample so that we can carry out silage analysis, we will then arrange a suitable time to visit your farm to discuss the results. Don't worry if you don't have any silage for analysis, we will still be happy to come and discuss your silage making process.

During the consultation, we will explore the 6 stages of silage making, and make recommendations to help improve your silage quality.





A **Volac** initiative

**For help with consistently better silage
and to book your free silage consultation**

go to



Brought to you by Volac, producers of Ecosyl

For more details: **Freephone 0800 919808 (UK)**
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