

Tips for making top silage

Make this year 's grass silage crop your best ever

Do you need some inspiration before you head out and make that first cut of silage? Find out how one producer manages to make high quality forage each year and then take a look at our 'last-minute' tips for making top silage.

With grass silage comprising some 60% of the forage in a TMR, which is fed 365-days a year to sustain 10,000 litre milk yields, ensuring a high and consistent quality is key for Castle Douglas-based producer David Yates.

Stability in the clamp is the most important factor, he says, and to this end he aims for a relatively high dry matter of around 30% and always uses an inoculant that he knows he can rely on.

"It also helps if you start with the best raw material," he says. "So I maintain my leys through regular reseeded." He's also adopted a grassland management strategy that has seen him enjoy recent successes in British Grassland Society competitions – representing Scotland in the overall national finals in 2002.

The 300-cow herd at Meikle Firth Head calves all-year-round and produces within 5% of 7,000 litres each and every day. This is achieved by feeding a TMR that typically includes 20kg grass silage, 10kg maize, 5kg wholecrop and 9kg of draff, alongside a concentrate blend and some crimped grain. Cows are housed every night and the ration varies very little all year round.

Grass silage is potentially one of the more variable ingredients in the ration, so particular attention is paid to the silage making process to ensure a consistent high quality.

And despite the difficult silage making conditions endured by many in 2007, silage at Meikle Firth Head sampled well at 73 D-value and 11.9 MJ/kg ME.

Protein retention

"What really counts is how well the silage feeds and one from the response we are seeing in the cows, we know that the true

protein retention is high," says David. "This is one of the key benefits from using an effective inoculant, but this is only of value if you are starting with the best quality grass and your silage making is done in a timely fashion and to a set plan."

In David's case the plan is to cut and spread in a single operation, and then ted out the crop within two to three hours of mowing. He then allows a 24-hour wilt, with the aim of making silage at around 30% dry matter.

Silage is picked up by a self-propelled Class 870, and David has given a lot of thought to ensuring application of an inoculant is achieved effectively at the speeds that the forager typically works.

"We have used Sil-All4x4 from Alltech for three years now as this ensures we make consistently high quality silage," he adds. "The combination of four bacteria and four enzymes ensures that we are converting the grass sugars to lactic acid quickly, whatever the conditions, and we know that it works at our relatively high dry matters."

Lactic acid

"Last year we used Sil-All4x4 FVA, which is a new formulation offering flexible volume application. This allows us to apply the inoculant at a lower dilution rate, which is more suited to our high capacity forager. Through this approach there is less chance of any variation in the application rate, which again means

we are producing consistently high quality silage."

First cut is typically made in the second half of May and will be sufficient to feed the milking cows. Second cut is usually reserved for youngstock and dry cows.

Good weed control and regular spring harrowing and rolling keeps the leys in the best possible condition, and the policy is to alternate cutting and grazing, again to maximise the quality of grass available. Cows only go out to graze once first cut aftermaths become available in early June, and they continue to receive the total mixed ration all through the summer months.

Rachael Porter

Last-minute tips for making top quality silage

IGER's Grassland Development Centre manager Heather McCalman says that taking a little time to run through her team's checklist of essential 'last-minute' silage making pointers – before you start cutting – should give you the best chance of making a good crop of silage this year.

Cut at the right growth stage

- Aim for a crop with around 67D, or 50% ear emergence, to get high sugars. Above 3% at 20% DM is needed to give energy to drive fermentation.
- Look for a low nitrate percentage (below 0.1) to prevent the production of ammonia nitrogen that will increase buffering capacity and restrict fermentation. This also means that N fertiliser or N in slurry has not been 'wasted' by application above grass requirements.
- Carry out a pre-cut test to see where your sugar and nitrate levels are.

Soil contamination

Soil contamination can be a major

issue when making silage in wet conditions so:

- Aim to move the grass around as little as possible when it is in swaths and avoid driving over the swaths.
- Ensure that the clamp area is kept clean and that soil from trailer wheels is not carried into the clamp on the buck rake. If making bales it is far better to bring them back to a clean yard to wrap rather than wrapping in the field.
- Apply slurry at least eight weeks before ensiling or use low-emission techniques to avoid contamination.

Sulphur

- An application of sulphur ahead of the second cut would result in increased yields in most instances.
- About 50m³/ha of slurry will supply around 20kg/ha of available SO₃, which would supply enough sulphur for the following silage crop.
- Check sulphur in herbage to see if sulphur needed.

Additive use

- For high quality silages for milking cows use an additive to maximise protein quality.
- Additives would be advisable on all silages where conditions may restrict rapid fermentation; low sugars, high nitrates, wet crops and poor harvesting conditions.
- Always use an inoculant on clover rich silage.
- A good inoculant (with one million+ bugs per gramme of dry matter) will help to achieve a good fermentation in wet conditions.
- There should be no need to resort to an acid unless there are high nitrates or significant soil contamination.

Clamp management

- Make sure the clamp is well consolidated and that the labour/contractor work rates allow this.
- Discuss bale requirements with contractors and make sure big bales are wrapped with at least six layers.
- Consider using green or white wrap