Newsletter MAY 2022

THE CASE FOR SILAGE ADDITIVES

- A VERY GOOD INVESTMENT, IRRESPECTIVE OF CUTTING CONDITIONS

By Tim Guinan - (B. Agr. Sc.) – Tel: 087 257 3368

When you seal a pit of grass, you are creating oxygen-free conditions that encourage **Lactic Acid-Producing Bacteria (LAB)** to proliferate and convert the sugars in the grass into mild acids which preserve the grass as silage.

This is the fermentation process and it produces lots of heat. This heat is produced by the burning of **Energy** (found in Grass DM), the most valuable component of any feedstuff. So, the real trick with making silage cost-effectively is to **minimise the time** that the pit is heating and thereby **minimise the amount of Energy lost** before the pit locks itself down.

The target is a 3-day fermentation. Many silage pits continue to produce heat for up to 3 weeks after cutting. Prolonged fermentations have been widely associated with DM losses of at least 10% in untreated silages under good ensiling conditions. Where ensiling conditions are poor, these losses can double! These losses are costing farmers a small fortune, but unfortunately, largely go unnoticed.

To prevent these losses, scientific data strongly suggests that the use of good-quality silage additives reduces DM losses during fermentation in typical Grass Silage pits **by at least 50%** when compared to untreated silage. They achieve this simply by loading grass with large numbers of **LAB** that complete the acidification/fermentation process much faster than would happen in their absence.

SO, WHAT ARE THE SUMS?

1. Assuming average silage contains 300kg DM, a 10% DM loss equates to a loss of 30kg DM from every tonne of grass ensiled. A good-quality silage additive will reduce losses by at least 50%, so it will save at least 15kg DM/T of grass ensiled.

2. Silage currently costs €40/T to produce. At 30% DM, this equates to €133/T DM. So, on that basis every kilo of silage DM is costing you 13.3 cents to produce.

3. Therefore, the 15kgs of DM saved by using a silage additive is worth 15kg x 13.3c/kg = €2/T GS harvested.

4. So, at a typical cost of €1.40/T of grass treated, a good silage additive will not alone cover its own costs, but it will more than do so on the basis of greatly reduced DM losses alone.

5. Excluding the direct cost, and the benefit of reducing DM (Energy) losses, there are several other even more important financial benefits to be gained from treating grass with a silage additive. These benefits basically come FREE and include several vital components:

A. Reduced True Protein Losses The faster fermentation that a high load of **LAB** will deliver, also reduces grass protein losses during the ensiling process. What is that worth these days when the likes of Soyabean, Rape meal & Distillers are so expensive?

B. Much longer lasting/more stable silage at feed out Additive treated silages will give you a much more stable silage. This means when the pit is opened, you get far fewer problems with secondary heating & the myriad issues that heating silage can cause.

C. Higher Palatability/Higher Intakes/Higher Performance The higher Lactic acid levels produced in treated silages make them much more palatable. If stock like the taste & smell of silage better, then it stands to reason they will eat more of it and perform better!

IN SUMMARY... we always believed silage additives made sense. However, with the costs of making silage going through the roof in recent years and that of silage additives staying more or less the same, good silage additives, with a proven track record NEVER made more sense. Talk to us TODAY.

THE IMPORTANCE OF FIBRE IN CALF DIETS AT GROUND

By Joe Naughton - (B. Agr. Sc.)
– Tel: 086 1452586

Fibre has a very important role to play in a calf's diet at grass for the first 6-8 weeks after turnout. *The presence of fibre can reduce the risk of acidosis in calves and aid in rumen development.* Calves on high-fibre diets will have better appetites, higher live-weight gain, dry healthy dungs and overall, better thrive.

Fibre needs to be supplied in a combination of ways for the best results.

1. **Straw** should be readily available to calves at grass as a source of fibre to aid rumen development and slow down the overall digestion of lush grass. It is best to feed fresh straw daily, for a period of 6-8 weeks.

2. For turnout, **older permanent pastures** with high covers of 1500kg/ha with some stemmy grass available will have a higher level of fibre, which is more suitable for the calf's rumen.

3. Calves should be consuming 2kg of a high-fibre concentrate such as **Grennan's Early Graze Calf Nuts**. Feeding should be continued for at least 4 weeks post-turnout until calves are well adjusted to a grass diet. Where grass is sufficient, feeding can be continued at 1-2kg/day through the summer months.

Grennan's Early Graze Calf Nuts are designed specifically to help prevent Acidosis and enable the calf to make the best use of a grass-based diet. Our **Early Graze Calf Nuts** are *low in starch and high in fibre* and contain a highly specialised mineral/vitamin pack with a finely tuned buffering package designed specifically to help prevent acidosis.

Consider all the above to aid a smooth transition to grass for your calves this year.

IMPROVING MILK SOLIDS PRODUCTION TO MAXIMISE MILK PRICE!

By Aisling Claffey – (B. Agr. Sc., PhD) – Tel: 086 031 7483

March and April have proved to be challenging months, with grazing conditions hampered by weather, prolonging the period of negative energy balance in the early lactation dairy cow! These challenges significantly dampened milk protein concentration, as energy intakes were reduced by the continued presence and volume of Grass Silage in the diet throughout this period.

With declining milk prices, it has never been more important to maximise milk solids and to hold peak milk yield. Managing grass quality over the next 6 weeks has a huge role to play on both counts.

- Graze covers of 1,400-1,600 kg DM/ha and aim for graze outs of 4cm to maintain leaf proportions in the next rotation.
- Heavy paddocks have higher levels of stem and are therefore contributing less energy and protein to the diet.
- Cut and weigh paddocks to ensure cover estimations are accurate, particularly with increasing dry matters when weather conditions are good. Check our weekly Grass Watch reports for guides on DM% to use!
- Measure grass every 5-7 days. Remove heavy paddocks as surplus bales to maintain leafy swards, these can be fed back if grass gets tight during persistent dry spells.

Milk fat concentration can also be a challenge from mid-late April onwards due to a combination of factors including:

- Variable oil (Unsaturated fatty acid) content of the grass plant – this can lead to an alteration of the normal digestive process in the rumen, leading to reduced milk fats.
- Nitrogen fertiliser applied and timing of application.
- High levels of sugars/rapidly digestible material in leafy swards.
- Removal of silage from the diet – lower physically effective Fibre in the diet.

Our **Fat Care Dairy 14 %** is designed to deliver at least a **0.3% increase in milk fat**, where milk fat depression is evident. So, what is this worth in a typical herd of cows?

Herd avg.	25 litre @ 3.6% F	25 litre @ 3.9% F	30 litre @ 3.6% F	30 litre @ 3.9% F
*Cost of feed	€1.88	€2.02	€2.82	€3.03
**Value of fat/kg	€4.62	€5.01	€5.55	€6.01
Return/cow	€2.74	€2.99	€2.73	€2.98
WHAT IS THIS 0.3% LIFT IN MILK FAT WORTH TO YOU AND YOUR HERD?				
Value/cow/day		€0.25/cow		€0.25/cow
***Net Return		€2,250		€2,250

*Based on the 4kg feed rate for 25L herd avg. and 6kg feed rate for 30L herd avg.

** Based on the value of fat at €4.99 (base milk price 43c/L).

***Based on a 100-cow herd over 90 days.

IMPROVE SPRAY EFFICACY BY ADDRESSING WATER HARDNESS AND PH

By Aaron Kealy - (B. Agr. Sc.) – Tel: 086 1999148

Water hardness and pH can have a significant impact on the efficacy of spray applications affecting the solubility and absorption of products. Water hardness is determined by the amount of iron, calcium, and magnesium dissolved in your water. Like magnets, these positively charged ions lock themselves to the negatively charged pesticide molecules. This creates a larger molecule which will struggle to get into the target pest/weed.

Here are some ways to improve spray efficacy by addressing water hardness and pH:

1. Test water quality: Have your water tested to determine its hardness and pH levels. This will help in identifying the precise amounts of chemicals required and their mixing order. Water samples must be collected using clean bottles for accurate results. We can help you with this if needs be.

2. Adjust pH levels: The pH of the water should be between 6.0 and 7.5 for most pesticides to be effective. If the pH level is too high, add an acidic solution or buffer to lower the pH.

3. Use water conditioning agents: Water conditioning agents can help in reducing the negative impact of hard water on spray efficacy. These agents can chelate and remove the minerals that cause water hardness, making the water softer and more effective in carrying pesticides.

4. Use softened water: Softening the water with a water softener can help in reducing water hardness, thereby improving spray efficacy. Softened water can also help in reducing the amount of chemicals required and extend the life of spraying equipment.

Spray Plus is an acidifying nitrogen solution which acts as a water conditioner. It reduces and buffers the water's pH, and it neutralises bicarbonates to soften your water, improving the overall efficacy of your spray solutions.

Spray Plus is used at a rate specific to the hardness of your water, so ask your J Grennan & Sons rep to test your water.

THE ECONOMICS OF DOCK & THISTLE SPRAYING

By Paul Mooney - (B. Agr. Sc.) - Tel: 086 3532342

Lush-green, weed-free pastures are every farmer's dream, but it doesn't always happen! Docks, Dandelions, Thistles, Nettles, Chickweed, Ragwort, Rushes etc., are costing most farmers a fortune in reduced production. Only 9% of grassland in Ireland receives a weed spray each year and it is estimated that at least 25% of grassland needs spraying. Topping can take the unsightly look away, but it only prolongs the problem.

Remember the old saying, "One year of seeds equals seven years of weeds"!

One mature dock can produce up to 60,000 seeds and 90% of these can be viable if let ripen. 1 dock in a 7m x 5m square equates to a 5% field infestation level. This adds up to €100/ha loss annually. Chemical control of weeds is expensive, so it is vital to get it right, first time. In general, the more expensive and newer chemistry will provide longer control and end up being cheaper in the long term. See the picture adjacent, only the best chemistry will get deep into roots such as these. Solutions can be complex, so talk to any of our Pesticide Advisors.