

# ALL THINGS MOLASSES newsletter

Welcome to the August edition of our All Things Molasses newsletter where we look at how Molasses can help farms get the most output from grass silage this winter if their forage has high fibre and lignin levels and we also give an update on the current molasses market as we head into the winter.

## ON FARM FOCUS

### High Fibre and Lignin levels in your grass silage?

### Adding the sugars in Molasses will get your diets back in balance this winter!

By Mark Few UMGB Product Manager and Richard Colley, Farm consultant at Colley Beef Agri

**It's that time of year when the early first cut grass silage analysis results have been published and most farmers will be making decisions about the best way to balance their TMR diets nutrition this winter.**

Trouw Nutrition are reporting a trend of higher NDF and Lignin levels in this year's early first cut results with Metabolisable Energy (ME) and Sugars both down on previous years (see table A). Trouw Nutrition have also commented on a weekly trend of above optimum NDF levels well above the target range of 38 to 40%, with the average lignin levels up from 38 g/kg DM last year to 40.1 g/kg DM this year.

The most likely reason for the rise in NDF and Lignin levels were the relatively mild temperatures experienced in many parts of England last winter so many grass swards never fully stopped growing resulting in a higher proportion of mature grass when first cuts were made.

**"High NDF and lignin levels in silage will mean a slower digestion through the rumen which will result in lower Dry Matter intakes and a drop in milk yields"** reports Richard Colley, farm consultant at Colley Beef Agri. The levels of lignin in grass are directly influenced by temperature and rainfall, to find out more please see the **'Did you know?'** section in this newsletter.



Cane Molasses \$ import costs rising through summer, so positive exchange rates key to reducing impact in winter sales period

Most major Cane molasses export countries are in off crop period so supply levels down until new crop ready to lift

Q1 2024 new crop Cane molasses volume projections currently down on the 2023 levels

Bulk sea freights are coming down but still trending above the last 5 year average

Strength of £ to \$ will be the key to winter 2023/24 Cane molasses pricing

Other bulk liquid ingredients price levels looking more stable with less volatility

Urea prills pricing is down from the peak levels reached in last 12 months which will mean our bonded urea Nutrimaize blends being more cost competitive on farm

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TABLE A: Trouw Nutrition early 1st cut Grass Silage results

	2023	2022	2021
Number of silage samples	500	529	500
Dry Matter %	30.9	30.7	33.7
Crude Protein (% DM)	14.3	15.3	14.6
ME (MJ/kg DM)	11.1	11.45	11.71
NDF (% DM)	44.5	46.1	41.8
Lignin (g/kg DM)	40.1	38	N/A
Average Sugars (% DM)	0.9	1.9	3.16
Rapidly Fermentable Carbohydrates (g/kg DM)	192.8	194.7	215.9
Total Fermentable Carbohydrates (g/kg DM)	417.2	448.2	436.6
Rapidly Fermentable Protein (g/kg DM)	92.5	93.7	94.6
Total Fermentable Protein (g/kg DM)	104.1	112.5	108.5

Ref: Trouw Nutrition laboratory GB 2023

The most effective way to balance a forage that is too high in fibre and lignin is to add a good source of rapidly fermentable carbohydrates (RFCs) in the form of sugars (sucrose) as they break down in the rumen less than 2 hours after feeding and will drive volatile fatty acid production to get the rumen working to help breakdown more fibrous and lignified forage quicker.

The best source of sugars for ruminants is Molasses and as this years silage is down in sugars compared to last year (0.9% versus 1.9% last year) we believe it's the perfect complementary feed to balance grass silage based diets this winter. **“For a balanced diet you need between 5 to 6% sugars but this years early 1st cut grass silage indications are below 1%! Molasses products are the best source of sugars and will be essential to help farms get enough quality RFCs in silage based diets while also increasing palatability and intakes”** adds Richard.

To demonstrate how a molasses product can boost the sugars Richard ran 2 basic maintenance plus 25 litre diets based on the Trouw early 1st cut grass silage analysis, one with just straights and a second one with 1.2kg of United Molasses GB's Caneflow product added. As you can see from the results in table B the diet with the Caneflow added raised the sugars from 1.92% to 5.17%. **“These results clearly show the impact adding just 1.2kg of molasses can have in getting the diet's sugars in the sweet spot so we can get the rumen working quicker and get all that fibre and lignin present in the silage broken down faster so good intakes can be maintained”** adds Richard.

TABLE B: Diet comparison data for Maintenance +25 Litre dairy diets

Feed Material	Diet 1 Straights	Diet 2 Add Caneflow
Early 2023 Grass Silage Analysis (Trouw GB)	21kg	21kg
Maize Silage	21kg	21kg
Caustic Wheat	3kg	2kg
Soya HiPro	1.1kg	1.2kg
Rapeseed Meal	1.1kg	1.2kg
Soya Hulls	1.1kg	0.8kg
Dairy Minerals	150g	150g
Caneflow	-	1.2kg
<b>ANALYSIS</b>		
Starch (% DM)	17.99	15.70
Sugars (% DM) <b>Target 5-6%</b>	1.92	<b>5.17</b>
RFC (g/kgDM)	196	219

Trouw Nutrition are also reporting as per the results in Table A that crude protein levels are down on this year's early grass silage results at 14.3% compared to 15.3% last year with the level of rapidly fermentable protein also down from 194.7 g/kg DM in 2022 to 192.8 g/kg DM in 2023 which will mean a reduced supply of intestinal protein in the rumen. This will mean rations will need to be balanced in the supply of both energy and protein this winter to ensure enough microbial protein is present and also balanced with the level of bypass protein. **“With Urea prices falling you should have a good look at a bonded urea liquid like Nutrimaize 46 this winter as a molasses liquid that is rich in both rapidly fermentable carbohydrates and rapidly fermentable protein will be perfect to balance these 1st cut grass silage qualities and lead to positive gains in both cow health and performance!”** comments Richard.

To conclude adding a molasses product to diets based on this winter's Trouw Nutrition grass silage results will lift the sugar levels to the optimum range while also fine tuning the levels of RFC's present to help improve rumen efficiency and ensure better digestion of the high fibre levels reported which will lead to improved herd performance. The early second cut grass silage results are also being reported by Trouw Nutrition to be high in fibre and lignin which further enhances the narrative of the need for sugars in these TMR diets. There will also be a need for rapidly fermentable protein to balance these early 1st cut silages results so an option of a molasses product with bonded Urea such as from United Molasses GB's Nutrimaize range could also fit really well. For farms reporting better sugar levels in their first cut silage results they should look at alternative lower sugar liquids such as United Molasses GB's **Golden Malt Syrup** that will still provide the feeding benefits of improved palatability and intakes.

For more information about any of United Molasses GB extensive product range please contact them on 0151 955 4850 or simply visit [www.unitedmolasses.com](http://www.unitedmolasses.com).

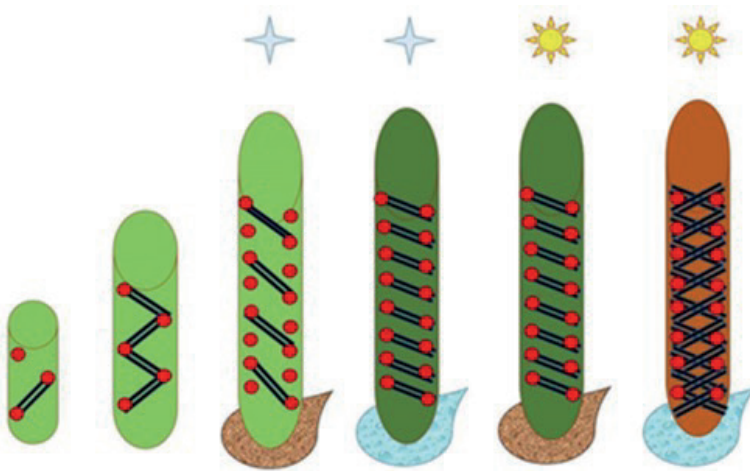
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## DID YOU KNOW?

### Understanding Lignification in Grass

**The amount of Lignin growth in grass is directly linked to temperature and rainfall. The below diagram show how the variance of these factors influences the amount of lignin present in the grass.**

In the images the double lines represent Lignin. The soil graphic represents dry growing conditions while the water graphic represents wet conditions. The ice symbol represents cold temperatures and the sun symbol means warm temperatures.



The first 2 images represent young leafy grass where the Lignin level gradually increases as the grass gets bigger to keep it upright.

In cold temperatures the yield of grass will be down with more Lignin present in wet conditions as there is a stress response from the grass to stay upright when moist.

When the temperatures are warmer grass yields are much better but the lignin level will be especially high if there is plenty of rainfall again as a stress response to keep upright.

**The ideal aim on farm is for high yields with quick growth rates so there is less stress on the grass over time and lignin levels are lower, however mother nature is always in charge and not always predictable!**

Ref: Lignification diagram supplied with kind permission by Cargill

## MOLASSES NEWS UK Dairy Day show 2023

United Molasses GB will be at the UK Dairy Day show at Telford this year on Wednesday 13th September on stand H137 in Hall 1.

We look forward to seeing some of our customers again and talking all things molasses for this winter.