

ALL THINGS MOLASSES newsletter

Welcome to the latest edition of United Molasses GB's All Things Molasses newsletter, in this edition we look at the challenges of feeding maize silage this winter on the back of the variable results reported for the 2024 crop and how adding molasses products can help farms to overcome them.

ON FARM FOCUS

To get milk from mixed forage diets this winter you will most likely need a bit of molasses sweetness!

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

The Trouw Nutrition results are in for the 2024 Maize silage crop and the results can be best described as variable in terms of the nutritional quality.

These results are not surprising given the weather challenges the UK experienced in 2024 with rain delaying most drilling until May and the subsequent low summer temperatures contributing to many of the Maize crops being immature at harvest last year. Trouw nutrition commented "Comparing the 2024 season to last year, this year's silage quality shows huge variability". When we focus on the key nutritional parameters of the crop there is a 3% drop in dry matter from 2023 with both the starch and NDF (Neutral detergent fibre) levels up from last year. The fibre level is especially important when you consider the majority of maize silage will be fed alongside grass silage in mixed forage diets and both the 1st and 2nd cut grass silage results were up in fibre from last year (see table A).

The most effective way to balance both grass and maize silages that are too high in fibre 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 to 3 hours after feeding and will drive volatile fatty acid production to get the rumen working to help breakdown more fibrous forage quicker.

The best source of sugars for ruminant diets is Molasses which have the added benefits of increasing Dry Matter (DM) intakes and making more energy available in the rumen. "For a balanced diet you need between 4 to 6% sugars which will provide plenty of quality RFCs, molasses products are the best source of sugars and will be essential to help farms get enough of these RFCs into maize silage based diets this winter" comments Richard Colley. In addition to providing a source of RFCs, Molasses liquids are well known to improve dry matter (DM) intakes of all forage types as they enhance palatability and allow cattle to consume approx. 0.5kg more Dry Matter a day over dry feeds.

TABLE A

Forage	Fibre Index 2023	Fibre Index 2024	Difference
Early 1st cut Grass silage	178%	187%	+9%
2nd cut Grass Silage	179%	189%	+10%
Maize Silage	146%	153%	+6%

Ref: Trouw Nutrition Laboratory GB 2024



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Molasses blends are also available with added regulated release protein at a variety of different specifications making them ideal for Maize silage based diets. “With the lower Dry matter of the 2024 Maize silage crop there will be more emphasis on maximising Dry matter intakes with this particular forage and that is one of the fundamental reasons why you feed molasses!” continues Richard.

To show the cost effectiveness of adding a molasses regulated release protein blend to a 50:50 Maize and Grass Silage (2024 analysis) PMR/TMR diet, Richard compared the diet with scenarios of adding United Molasses GB’s Nutrimol Super 50 liquid against Rapeseed Meal and found there was no extra cost per cow when adding 1kg of each but improved the sugars in the molasses diet by 1.3% on a DM basis (see table B).

TABLE B

Feed	Rapeseed meal	Nutrimol Super 50
Grass Silage 1st cut 2024	20	20
Maize Silage 2024	20	20
Rapeseed Meal	1	
Nutrimol Super 50		1
Analysis		
Sugars (% DM)	1.7	3
Crude Protein (% DM)	13.02	13.02
Cost/cow/day (pence)	25	25

Ref: All diet data produced using Ultramix by AGM systems. Feed prices valid as of December 2024.

To demonstrate further how Nutrimol Super 50 can improve the sugars Richard ran 2 basic maintenance plus 25 litre diets based again on 50:50 Maize and Grass Silage 2024 forage analyses, one with just straights and a second one with 1.5kg of Nutrimol Super 50 (see Table C).

As you can see from the results in table C the diet with the molasses product added raised the sugars from 2.42% to 4.14%. “These results clearly show the impact adding 1.5kg of Super 50 have had in getting sugars/RFCs into the diet so we can improve rumen throughput and get all that fibre in the silage broken down faster so good intakes can be maintained” states Richard.

“Although adding the Super 50 slightly increases the feed costs you only need each cow to produce an additional 0.36 litres a day to cover this and we know that adding molasses should easily translate to over a 1 litre milk bump from that additional dry matter that you get from feeding molasses!” adds Richard.

With milk prices trending upwards for the last few months there is currently a great incentive to push for more milk output so the extra DM intakes you get from feeding molasses liquids could really help to boost a farms financial returns from home grown forages such as Grass and Maize silage. “When I compared the 50:50 mixed forage diets I projected a milk gain of 1.2 litres per day from intakes when I included the Super 50 molasses so at a milk price of 45ppl this would be a net gain of over £8K a day on a 150 cow dairy herd which to me is a great return against feeding costs” comments Richard.

TABLE C

Feed	Straights only diet	Diet with Nutrimol Super 50
Grass Silage 1st cut 2024	20kg	20kg
Maize Silage 2024	20kg	20kg
Rapeseed Meal	1.2kg	0.8kg
Nutrimol Super 50		1.5kg
Soya HiPro	1.2kg	0.8kg
Dairy Minerals	0.1kg	0.1kg
Analysis		
Sugars (% DM)	2.42	4.14
Cost/litre (Pence)	6.0	6.64
Extra milk (litres) required above cost of straights for neutral cost (45ppl)		0.36
Projected milk gain (litres) from molasses via DM intake gain of approx. 0.5kg per day		1.2
Projected financial benefit from extra litres produced per day per cow (45ppl)		38p per cow

Ref: All diet data produced using Ultramix by AGM systems. Feed prices valid as of December 2024.

To conclude adding molasses products such UMGB’s Nutrimol Super 50 to ruminant diets based on this winter’s Trow Nutrition maize silage and grass silage analysis results will allow you to add the all important RFC’s that will be needed to ensure you get good rumen efficiency and thus better digestion of the high fibre index in both forage types to maximise herd performance. Additionally with the low Dry matter level of last year’s maize silage crop and the carrot of the current improved milk prices there should also be plenty of focus on increasing DM intakes which molasses products are proven to do! For more information about Nutrimol Super 50 or any of United Molasses GB extensive product range please contact them on 0151 955 4850 or simply visit www.unitedmolasses.com.