



Straw options fact sheet

- Feed straw effectively by harnessing the benefits with molasses based liquid feed supplementation
- In times of forage shortage, straw offers an excellent base for a ration, however, palatability, intakes and a low protein content can cause challenges
- Molasses based liquid feeds increase palatability and intakes as well as drive rumen microbial activity making it the ideal complimentary feed alongside straw
- The addition of Regulated Release protein in our ED&F Man liquid feeds provides an excellent source of rumen degradable protein alongside the sugars from cane molasses creates the ideal balance of protein and energy for the rumen

When to feed straw and molasses

- Buffer feeding during grazing period is essential to both meet animal nutrient requirements and maximise performance (animal growth and milk yield)
- Rather than using limited grass silage within a buffer feed, straw and molasses can be utilised to replace a proportion of grass silage helping extend forage stocks for winter
- Alternatively, many suckler herds utilise a diet of mainly straw and molasses to meet maintenance requirements
- When feeding predominantly straw and molasses as a diet, make sure to follow our feeding recommendations to avoid metabolic issues

Why feed straw and molasses?

- Straw is an excellent base for ruminant diets where silage is in short supply, however there are challenges with palatability, digestibility, and low protein content
- There are several ways of improving both animal intakes and how the rumen can utilise straw to make it into a better nutritional substitute for silage
- The key to replacing silage with straw is by maximising its digestibility by promoting high levels of rumen activity and fermentation
- With this in mind, molasses based liquid feeds offer the ideal compliment to straw feeding as it is highly palatable and drives rumen microbial activity
- Research has shown that a molasses-based liquid feed can positively influence fibre digestibility beyond that of molasses or sugar on its own over a 48-hour period, see table 1
- This can increase the digestibility of straw and enhance the nutrients available to the animal

	Control	CANE MOLASSES	Pure Starch	Pure Sugar	LIQUID FEED
8h	28.5	31.88	31.54	30.19	29.75
24h	+ 4.2	+ 8.98	+ 3.67	+ 3.17	+ 10.64
48h	+ 20.54	+ 25.81	+ 21.67	+ 21.37	+ 31.29

Table 1: Fibre Digestibility (% improvements) with added carbohydrate supplements

What to feed

Products such as **Regumix**, **Regupro** and **PotBlack** contain Regulated Release protein, this releases the rumen degradable protein at a steady rate into the rumen that is compatible with the rumen microbial activity.

Coupled with a high sugar content, these feeds offer the ideal combination of fermentable energy and available protein to drive rumen efficiency and animal performance.

Table 2 below highlights different feeding options alongside straw in order to replace 10kg of grass silage.

	Grass Silage	Regumix	PotBlack	Regupro 38	Regupro 50
Straw (kg)		2.1	2.1	2.2	2.4
Regumix (kg)		1			
Potblack (kg)			1.1		
Regupro 38 (kg)				1	
Regupro 50 (kg)					0.8
Dry Matter fed (kg)	2.5	2.5	2.6	2.5	2.6
Sugars as fed (g)	50	392	327	218	243
Protein as fed (g)	300	254	228	305	324
MJ as fed	25	21.2	20.5	20.5	20.2

Grass Silage (25% DM, 10 ME, 12% CP, 2% Sugar)
Barley Straw (87% DM, 6.8ME, 4% CP, 2% sugar)

Table 2 Molasses and straw feeding options

Feeding Recommendations

- Ensure cattle have access to fresh water
- Additional mineral supplementation is required in high straw based diets
- Allow the rumen two weeks adaptation period when making changes to the diet and gradually make changes over this period

Fresh-Guard

Worried about your TMR Heating?

It is vital to produce a high quality well balanced ration, but this can quickly be undermined if the ration starts to ferment and heat. The quality can then quickly deteriorate. Feed spoilage in the trough has been identified as a significant cost to farmers.

A cow eating 1 kg less dry matter due to aerobic spoilage could be producing around 2 litres less milk. What makes it worse is that it is the high value nutrients that spoil most quickly. The **Fresh-Guard** option can be included in any of ED&F Man's bulk molasses products.

Effective in preventing TMR spoilage at feed out, **Fresh-Guard** is a cost effective option available to farmers looking to prevent heating/spoilage.

For example, a typical cow will eat around 22kg dry matter (DM) of a TMR per day.

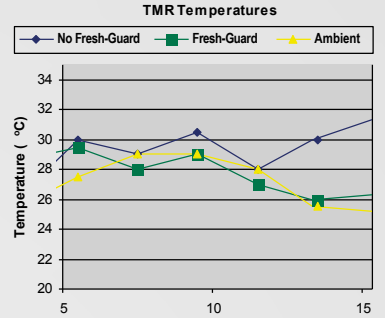
A 5% reduction in dry matter intakes due to heating in the TMR and production of off odours would mean a loss of around 1.1kg DM per cow per day.

This loss in intake means the cow is receiving less high value nutrients within the ration including protein and energy.

Based on an 11MJ/kg DM ration, this 1.1kg loss would equate to a loss of 12.1MJ of energy.

That could have made an extra 2L of milk, or in a 300-cow herd that's 600L of milk lost with a value of £150 per day. Over a 100-day summer, this would be a potential loss of income of up to **£15,000!**

Fresh-Guard can be added to any ED&F Man liquid product



Trial a storage tank - for free!

If you are thinking of using molasses for the first time, and you want to see if it works for you and your stock, then ED&F Man offer a tank trial scheme.

In ED&F Man's tank trial scheme, a fully-equipped storage tank is delivered on-farm for two months, you only pay for the product. During this time the beneficial effects of using ED&F Man's molasses products can be assessed. After the two month trial period, you can purchase the tank outright, or spread the payment using ED&F Man's interest free finance scheme. In the unlikely event of seeing no benefits, the tank can be returned at no cost, except that of the product purchased.

These high level tanks are convenient to use, and allow more cost-effective bulk purchases to be made.

Offer may be withdrawn at any time and is subject to terms and conditions.

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