

Supplementary Feed Options Update 05-08-2019

Local Molasses supply is back; all be it limited, it is more cost-effective than the imported product that many were reliant on a few months ago. Check with your usual suppliers regarding availability. Molasses is a great energy source but will require additional protein and cattle still need an adequate fibre source, e.g. paddock feed, hay or silage.

There have been increasing questions about feed requirements for cattle. Below is a table sourced from the NSW DPI fact sheet *Hand Feeding Cattle in Drought* prepared by Todd Andrews; the full fact sheet can be found on NSW DPI's website:

Table 1. Feed requirements 'as fed' (kg/head/day) for full hand feeding of cattle.

Stock class	Liveweight (kg)	Grain* 12MJ ME	Hay 8.5MJ ME	Pit silage 35%DM 8.5MJ ME	Bale silage 45%DM 10MJ ME	Grain:hay 50:50	Grain:hay 80:20
young stock gaining 0.2kg/d	200	3	5	13	8	4	3.5
	250	3.5	6	15	9.5	4.7	4
	300	4	7	17	11	5.5	4.5
	350	4.5	7.5	19	12	6	5
	400	5	>9MJ ME required		13	6.5	5.5
dry stock at maintenance	450	4.5	7.5	18	12	6	5
	500	5	8	19.5	13	6.5	5.5
	550	5.5	8.5	21	14	7	6
8 month pregnant cow (no gain)	500	7	8	19	18	9	8
	550	7.5	8	20	19	9.5	8.5
	600	8	Not Achievable		20	10	9
	650	8.5	>9MJ ME required		21	10.7	9.5
Lactating cow (no gain) with calf	500	Not Suitable	Not achievable		25	12	10.5
	550	20% roughage required	>10MJ ME required to maintain cow weight		26	12	11
	600				27	13	11.5
	650				28	14	12

* Calculations are for crushed grain. Feeding whole grain can increase the amounts required. Increase all amounts by 20% in cold weather, using hay where possible.

With a lot of silage and hay bales being traded, it is vital to remember how Dry Matter impacts bale weights. There is incredible variation in bale weights currently being seen locally, and this is mostly due to the DM content of the bales. So ask for a bale weight and dry matter percentage.

Below are 3 examples of how bale weights and dry matter effect price:

Assuming \$180/bale

4x4 Silage bale weight 650kg & 45%DM

- 1) $650\text{kg} \times 45\% = 292\text{kg DM}$ (358kg is water)
- 2) $\$180 \div 292\text{kg DM} = \$0.62/\text{kg Dry Matter}$
- 3) To calculate a per tonne DM price $\$0.62 \times 1000 = \$620/\text{T DM}$

vs 4x4 Silage bale weight 700kg & 35%DM

- 1) $700\text{kg} \times 35\% = 245\text{kg DM}$ (455kg is water)
- 2) $\$180 \div 245\text{kg DM} = \$0.73/\text{kg Dry Matter}$
- 3) To calculate a per tonne DM price $\$0.73 \times 1000 = \$730/\text{T DM}$

vs 4x4 Hay bale weight 330kg & 88%DM

- 1) $330\text{kg} \times 88\% = 290\text{kg DM}$ (40kg is water)
- 2) $\$180 \div 290\text{kg DM} = \$0.62/\text{kg Dry Matter}$
- 3) To calculate a per tonne DM price $\$0.62 \times 1000 = \$620/\text{T DM}$

Quantity of feed in a bale is only one aspect, consider requesting a feed quality test to determine the Energy, Protein and Fibre levels. These can be used with the above calculations to cost feeds on a per nutrient basis, this helps determine if a feed is cost effective.

NSW DPI have developed a Drought & Supplementary feed calculator that will perform all these calculations for you follow: <https://www.dpi.nsw.gov.au/sandbox/feedcost/#/>

This list is intended only as a guide, be sure to contact your preferred feed supplier to get actual prices and availability to match your circumstances.

Commodity	Availability	Price Range (ex GST)	Comments on Change from the last update	General Comments
Cotton Seed Meal	Very Limited, to Not Available	\$650-700/tonne	NO Change	Demand is presently higher than supply Not likely to change short term
Whole White Cotton Seed	Limited	\$650+/tonne	NO Change	Restricted to producers who can handle a bulk load. Price includes freight to Casino. Some Bulk Bags are around but very limited and more expensive
Canola Meal	Available	\$555 - 650/tonne	NO Change	Price Includes freight Casino, Bulk Bags dearer.
Soybean Meal	Available	\$880 – 950/tonne	NO change	Very expensive for beef cattle, Protein level high often >47%CP. High rumen degradability meaning usually needs to feed more frequently compared to cottonseed meal, - seek advice.
Palm Kernel Meal (PKE)	Limited	\$380 - 450/tonne	NO Change	Good energy and protein source 11MJ/ME and 15%CP on average. Slightly unpalatable and can require mixing with a small amount of grain. High in oil and fibre. Avoid getting it wet

				as it can become rancid. Seek advice if you haven't used this before
Molasses	Limited	\$250-270/t	Cane crush is underway locally so local supply is back online. Check availability through your usual suppliers	Price is for Bulk loads ex GST. Smaller amounts may be available but check the price.
Liquid supplements (Molasses + Protein)	OK at present	\$0.65/kg for products that use kg rate or \$0.85/Litre	NO Change	Various trade names with different mixtures, contact supplier for exact pricing and freight costs. Check individual products 1L often weighs about 1.4kg
Loose Licks (protein-based)	Limited	\$800-1,200/tonne	NO Change	Check urea content and remember that urea supplements are only of benefit if there is adequate fibre present as either paddock feed or provided as hay or silage
Lick Blocks (Protein Blocks)	Ok	\$120-140/100kg block	NO Change	Smaller blocks more expensive per kg.
Feed Lot meal/pellets	Good at Present	\$540-580/tonne	NO Change	Price is Bulk load. Higher in smaller quantities. Various rations around. Contact supplier.
Whole Barley	Ok but beginning to tighten	\$400-445/tonne	Most are coming from out of the region	Price includes freight in Bulk load to Lismore/Casino. Freight distance will impact price.
Sorghum	Ok	\$380-400/tonne	Most are coming from out of the region.	Price includes freight in Bulk load to Lismore/Casino. Freight distance will impact price.
Wheat	Ok	\$400-445/tonne	Most are coming from out of the region.	Price includes freight in Bulk load to Lismore/Casino. Freight distance will impact price.
Maize	Ok	\$550-600/tonne	Most are coming from out of the region	Price includes freight in Bulk load to Lismore/Casino. Freight distance will impact price.
Cereal Hay	Variable	\$150-190/ 4x4 bale \$500+/ tonne	Quality is variable, but pricing still high so confirm with your supplier local supply variable.	Freight distance is the killer. Most want to sell by the semi or B-Double load if coming from out of the area.
Canola Hay	Becoming limited	\$480-530+/tonne	NO Change	Freight distance is the killer, and most want to sell by the semi or B-Double load. Quality is variable but average quality 8-9ME/kg DM, 12-14%CP & NDF 40-50% so in the current season good nutritionally. Introduce gradually and consider testing for nitrate levels. Seek advice if you haven't used this before
Lucerne Hay	Variable but you need to order	\$650-750/tonne	NO Change	Freight distance is the killer, and most want to sell by the semi or B-Double load
Cereal Straw "Stubble"	Good	\$350 +/tonne	NO Change	This is only a fibre source it will require additional energy and protein supplements thus adding to feed costs
Sorghum Hay	Becoming limited	\$150-170/ 4 x 4 bale or if sourcing from west \$450-480/tonne in big squares	Less available	Watch for risk of Nitrate and Prussic acid poisoning risk from crops baled under drought-stressed conditions. These can be tested for via a feed sample, suggest testing before purchase if buying from out of the area

Tropical Pasture Grass Hay	Limited Locally	\$80- 150/ 4x4bale 8X4X3 bales \$200 +	Supplies & Quality of product hard to find A mixture of grass species within the product and being traded	Quality is the significant variable factor, cheaper it is chances are the quality will be lower, therefore, may need additional supplements
Silage various options	Limited Locally	\$100-180+/ 4x4bale	The cheaper product is likely to be tropical grass silage, e.g. Setaria. The more expensive silage, most likely oaten, sorghum or soybean. Check bale weights some bales >700kg which may justify the cost for some.	Quality is the point to consider and don't forget the dry matter issue, 4x4 round bales typically 45% dry matter which means 55% is water, so a 600kg silage bale only has 270kg of feed in it, so calculate how much feed your buying.
Soy Hull Pellets	Ok	\$415+/T	No Change	The by-product of soybean oil and meal production. This product consists mainly of the skin which covers the soybean. Soy hulls do not generally need any further processing to feed. It is not a product that can make up the full diet.
Rice Straw	Ok	\$80- 150/ 4x4bale	NO Change	High in fibre, average energy typically 6.7ME and 4%CP, but get feed test to know for sure. High in silica. Cattle often eat other hay/silage in preference, so don't use with other more palatable hay/silages. Requires additional energy & protein

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