

# LET'S TALK JOINING

Tech Talks with Ash Hunt & BLM White Cap / December 2019



The feel this month from farmers has been very reflective. With joining done in some parts of Australia and yet to happen in others, it is a patient wait to see if all of the hard work will be returned in healthy conception rates for both sheep and cattle breeders.

With so many varying factors along the way I have still come across a number of farmers who are quietly confident in their practices, which makes the waiting game a little easier. A common question that I get asked is **“how did my neighbour get better percentages?”** the feedback is generally consistent around these areas;

- > Targeting ideal condition scores
- > Feed efficiency / positive energy balance
- > Pinpointing deficiencies affecting fertility
- > Not forgetting the boys!

## Condition Score for Joining

If you have done the “Lifetime Ewe Management” or “Heifers for Profit” courses, or you intuitively focus on the condition scoring of your ewes and cows then it is fair to say you have proactive approach to understanding and improving the fertility and profitability of your breeding stock.

Research used to develop these courses has shown a higher condition score (CS) at joining results in higher conception rates in both sheep and cattle.

**Joining at CS 3 has been shown to minimise dry rates in Merino's to no more than 10% and 5% in Crossbred ewes** (Lifetime Wool, 2011). In dry times it can be challenging to get your ewes and cows in a higher CS to increase conception rates, particularly when feed is costly and maintaining ground cover in your paddocks is important.

lifetime<sup>wool</sup>  
more lambs, better wool, healthy ewes

LTEM 2.2

## Ewe condition score at joining and pregnancy status

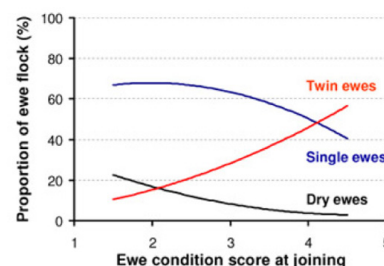


Figure 1: Ewe Condition Score at Joining and Pregnancy Status

## WHITE CAP

With the unique BLM 3-in-1 formulation of trace elements, amino acids & electrolytes we have been able to increase phosphorus and sulphur levels without impacting on the availability of magnesium and zinc already in our product.

## BENEFITS

- > Feed conversion of both dry & green feed
- > Beneficial to utilise fresh green feed
- > Aids in Phosphorus deficient areas
- > Supports rumen development in young animals
- > Assist in improving fertility & survival rates
- > Ease of Application – for best results use in the water supply, but can also be mixed with feed or poured on hay.
- > High amino acid content (the building blocks of protein)
- > Readily absorbed by the rumen
- > Nil withholding period
- > 3-year shelf life



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Managing CS is important in dry times, feeding animals to achieve higher Condition Scores such as CS 4 and over can be wasting costly feed, especially in cattle as it doesn't translate to higher twin rates like in sheep.

Whereas, cows under CS 2.7 will have a lengthened anoestrus period and maiden ewes will struggle to conceive on their first joining. Increasing body condition in light animals means much more feed than it would have been to maintain them in the first place.

**The challenge is maintaining the ideal CS as cost effectively as possible**, that's where Feed efficiency is key. Please see Tables 1 & 2 outlining what each CS looks like in sheep and cattle.






1		<b>Backbone</b> The bones form a sharp narrow ridge. Each vertebra can be easily felt as a bone under the skin. There is only a very small eye muscle. The sheep is quite thin (virtually unsaleable)	<b>Short Ribs</b> The ends of the short ribs are very obvious. It is easy to feel the squarish shape of the ends. Using fingers spread 1cm apart, it feels like the fingernail under the skin with practically no covering
2		<b>Backbone</b> The bones form a narrow ridge but the points are rounded with muscle. It is easy to press between each bone. There is a reasonable eye muscle. Store condition- ideal for wethers and lean meat.	<b>Short Ribs</b> The ends of the short ribs are rounded but it is easy to press between them. Using fingers spread 0.5cm apart, the ends feel rounded like finger ends. They are covered with flesh but it is easy to press under and between them.
3		<b>Backbone</b> The vertebrae are only slightly elevated above a full eye muscle. It is possible to feel each rounded bone but not to press between them. (Forward store condition ideal for most lamb markets now. No excess fat).	<b>Short Ribs</b> The ends of short ribs are well rounded and filled in with muscle. Using 4 fingers pressed tightly together, it is possible to feel the rounded ends but not between them. They are well covered and filled in with muscle.
4		<b>Backbone</b> It is possible to feel most vertebrae with pressure. The back bone is a smooth slightly raised ridge above full eye muscles and the skin floats over it.	<b>Short Ribs</b> It is only possible to feel or sense one or two short ribs and only possible to press under them with difficulty. It feels like the side of the palm, where maybe one end can just be sensed.
5		<b>Backbone</b> The spine may only be felt (if at all) by pressing down firmly between the fat covered eye muscles. A bustle of fat may appear over the tail (wasteful and uneconomic).	<b>Short Ribs</b> It is virtually impossible to feel under the ends as the triangle formed by the long ribs and hip bone is filled with meat and fat. The short rib ends cannot be felt.

Table 1: Ewe Condition Scores


























BODY CONDITION SCORE	Lumbar vertebrae	Rear view (cross-section) of the hook bones	Side view of the line between the hook and the pin bones	Cavity between tailhead and pin bone	
				REAR VIEW	SIDE VIEW
1 Severe underconditioning					
2 Frame obvious					
3 Frame and covering well balanced					
4 Frame not as visible as covering					
5 Severe overconditioning					

Table 2: Cow Condition Scores



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## Positive Energy Balance

Leading into the summer months sheep and cattle will be consuming dry feed that's declining in quality. At least 1 cycle out from joining, ewes and cows should be on a rising plane of nutrition. This means an increase in quality and/or quantity of feed available.

Given the declining quality of pasture the season is working against having a positive energy balance. As pasture hays off the Neutral Detergent Fibre (NDF) rises, reducing the overall digestibility of the pasture, energy availability and the quantity livestock can eat. Please see Figure 2 below.

**BLM White Cap** supplies key amino acids, and major and trace elements to improve feed efficiency and absorption. As BLM products are supplying amino acids via seagrass and kelp extracts it is still safe to use in conjunction with other dry feed supplements.

## Deficiencies crippling fertility

**Phosphorus deficiency** has been proven to reduce appetite in livestock and reduce fertility. Reduced appetite has a flow on effect on maintaining the CS of livestock, if they are not consuming enough feed to meet their daily energy requirements, they will continue to lose body condition.

**By utilising products like BLM White Cap 1 month prior to joining for females and 2 months prior for sires, you can have a positive influence on energy availability.**

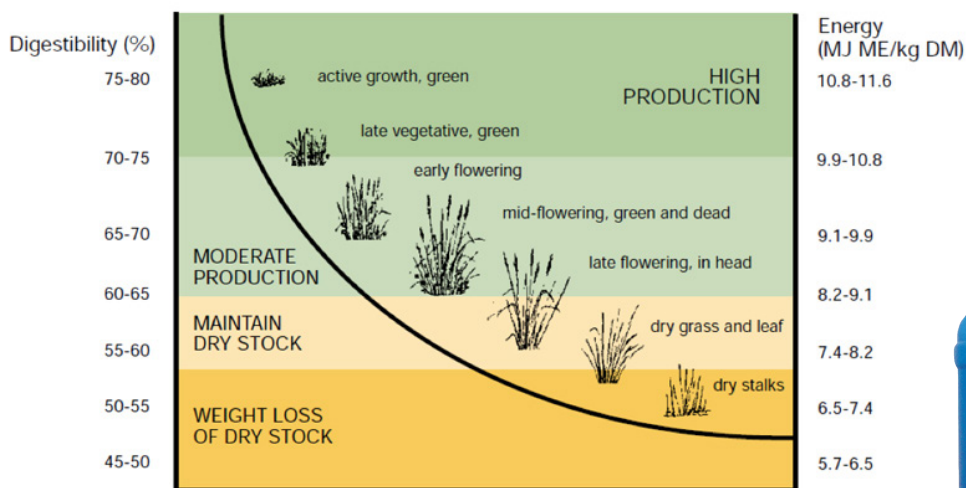


Figure 2: A guide to digestibility percentages and how it impacts Energy availability as temperate pastures mature.



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Phosphorus deficiency also plays a role in energy metabolism and utilisation, making it an important macro in dry times to improve feed efficiency. Leading into the wet season, now is the best time to increase P intake via supplementation of **BLM White Cap** to improve conception rates.

Selenium deficiency can also reduce fertility in sheep and cattle. When selenium is added to the diet, it can be attributed to the reduction in embryonic loss in the first month of gestation (Mehdi & Dufrasne, 2016). It can also reduce sperm motility by altering testosterone synthesis, causing infertility in males (Mehdi & Dufrasne, 2016).

Iodine and Manganese are trace elements usually forgotten about when discussing deficiencies. However, both are important because they cause irregularities and depression of cycling and low conception rates (National Academies of Sciences, 2016).

## Did you know Seagrass contains Iodine naturally?

A benefit to using **BLM White Cap** is it contains 12 key major and trace elements in one simple and easy to use product. Enhancing the mineral status of your livestock at key times to improve sperm quality, egg quality, cycling and conception rates.

*"If the availability of these essential elements is missing, then the egg quality of the donors will be compromised.*

*So, the question is....*

*how do we ensure that donors are receiving adequate supply of these elements?*

*ART has used Beachport Liquid Minerals for several years at our Rockhampton donor facility with great success. Typically, many of the donors we receive come without sufficient backgrounding. Upon arrival at our donor centre all donors receive the prescribed amount of BLM. Within the first month we notice a significant increase in the egg number and quality. Further supplementation is repeated for all donors every 6 weeks to keep them in top performance. Additionally, stress has a big impact on the success of the ET program, especially, right at the point of embryo transfer. Fortunately, BLM also supplies a product that has a calming effect on recipients. This product incorporated into an ET program can lift pregnancy rates by up to 15%. Finally, when the job is done, and clients take their valuable donors home, they all comment on how well their cattle look. They see the difference on the outside....*

*I see the difference on the inside."*

– Simon Walton, CEO July 2016

– Australian Reproductive Technologies Wandal, QLD



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## Yeah, the boys!

Many producers are focussed on the ewes or cow's preparation; rightly so! However, the rams and bulls are usually forgotten about until a couple of weeks before joining and they're 50% of the puzzle. It takes approximately 6-8 weeks for spermatogenesis to occur, meaning for a ram or bull to produce fully motile sperm that's able to fertilise an egg. Therefore, 2 months prior to get them in and give them the once over, focussing on the following –

### > The 5 T's; Teeth, Toes, Tossle, Torso and Testicles, ensuring everything is in working order

- > Administer animal health treatments such as vaccinations, drench, fly protection, etc
- > Condition score and adjust feeding strategy accordingly, CS will affect their performance too!

It's important to remember to avoid significant stress within 2 months of joining such as shearing, crutching, etc because stress can reduce ram and bull sperm quality. Also avoid sudden changes in feed. If ewes or cows are being supplementary fed, begin introducing the same ration to the rams and bulls. This is especially important when feeding starch-based grains to avoid grain poisoning/acidosis.

## BLM White Cap

**BLM White Cap** is a 3 in 1 liquid supplement derived from seagrass and kelp containing naturally occurring amino acids, fulvic acid and chelated major and trace elements, particularly Phosphorus. Fulvic acid is a natural electrolyte that improves absorption, availability and retention of the nutrients in our product. The powerful ability of fulvic acid to bond, dissolve and transport nutrients into cells, acting like an injection, makes it last up to 6 weeks in the animal's system. The simplicity of dosing cattle once every 4-6 weeks, rather than daily dosing saves you time and money. BLM White Cap is also available in our **organic range**.

Administering **BLM White Cap** regularly boosts a cattle's reserves of major and trace elements including phosphorus, selenium, copper, cobalt and others to improve production. It also enhances feed conversion by providing amino and fulvic acids in the dry, when the availability of protein in feed is limited. These two important components of our product enable cattle to maintain condition scores, improves fertility and weaning rates leading up to the wet season.

## References

- Figure 1: Lifetime Wool Ewe Condition Score at Joining and Pregnancy Status <http://www.lifetimewool.com.au/Ewe%20Management/conception.aspx>
- Figure 2: MLA 2.07 – Field Based Pasture Measurements <https://mbfp.mla.com.au/pasture-growth/tool-27-field-based-pasture-measurements/>
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- Table 1: Lifetime wool Ewe Condition Scores <http://www.lifetimewool.com.au/conditionscore.aspx>
- Table 2: Ketolution Cow Condition Scores <https://www.ketolution.com/en/bcs-body-condition-scoring/>



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