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Nutritionist

## Optimising Dry Summer Feed

Dry summer feeds such as stubbles and mature pastures provide a challenging, yet usable food source for grazing livestock. Whilst such feeds actually do contain useful levels of protein and energy, the low levels of digestibility make effective utilization by stock difficult, but not impossible.

In order to get the best value from dry summer feeds, producers need to understand both the needs of their stock as well as the ability of dry summer feeds to meet those needs. This, together with appropriate supplementation can actually support maintenance in adults as well as live weight gains in young stock.

### ***The feed maturation processes.***

If you ask a livestock producer ‘When do your stock look the best?’ the answer will often be ‘in late spring’. The reason for this is that time in the growth cycle, pastures/crops are at their most balanced in terms of protein, energy, dry matter and nutrients.

As further plant maturity occurs, the plant nutrients become more concentrated. In the case of annual’s (both pastures and crops), those nutrients tend to become concentrated in the seed heads which become the nutrient reservoir for next year’s growth. In the case of perennials/biennials, the nutrients go two ways – into both seed and into storage points in the roots to again, allow for the new seasons growth from existing plants and new recruits.

As a result, those nutrients tend to become lost to grazing livestock. In the case of crops, producers will harvest and in the case of perennial pastures, the seed are often too small to be consumed by stock and the roots storages are inaccessible. The

### ***AT A GLANCE***

- ***Mineral supplementation is essential when grazing stubbles and/or mature pastures.***
- ***Stubble Mix is designed to stimulate rumen microbes and thus increased livestock performance when grazing such forages.***
- ***Independent trials have shown weight gains of supplemented lambs to be up to 74% higher, and with better stubble utilization than unsupplemented lambs***

exception to this rule is clover seed which is a valuable source of protein over the summer period.

The end result is that we are left with vegetation that is much lower in plant nutrients that are a lot harder for ruminants to utilize.

### ***The Ruminant***

Ruminants have evolved over millennia to be able to extract nutrients from forages of varying quality and they are able to achieve this through the actions of rumen microbes.

Contained within the rumen is a complete ecosystem, designed to

breakdown feed so it can be utilized by its host. In order to maximize a ruminant’s ability to extract the maximum amount of nutrients from senesced feed, we need to focus on the needs for the microbes within the rumen environment.

Of the 3 main groups of rumen microbes, we are mainly concerned with Bacteria which carry out most of the digestion of sugars, starch, fiber, and protein and Fungi.

Whilst Fungi make up only a small fraction of the rumen microbial population, but they have an important role breaking apart recalcitrant plant walls to make them more easily digested by the bacteria. Indeed, fungi populations within the rumen tend to be highest when mature forages make up the bulk of an animals diet.

To ensure efficient rumen function on low digestibility feed, the rumen microbes need to be provides with a source of rumen degradable protein and a range of key minerals that both feed the microbes as well as maintain the rumen environment.

### **Fabstock's Lactation Stubble Mix**

Fabstock **Lactation Stubble Mix** has been designed to allow producers to utilize dry standing feeds by overcoming the deficiencies that exist with such feeds.

Fabstock **Lactation Stubble Mix** contains a rumen degradable protein source that can be used by rumen bacteria together with bypass protein that is utilized directly by livestock, reducing the risk of protein deficiency, together with a source of simple sugars for energy

**Lactation Stubble Mix** contains balanced levels of calcium, phosphorus and magnesium, all essential for rumen microbes to grow and multiply as well as sulphur to maintain the rumen environment. Sulphur is also necessary to stimulate fungal activity.

**Lactation Stubble Mix** also contains methionine to stimulate the appetite as well as a number of B group vitamins to assist with energy metabolism.

Buffers in Stubble mix reduce the risk of acidosis when grazing newly harvested cereal stubble

Fabstock **Lactation Stubble Mix** provides a balanced nutritional package, is cost effective and delivers a real return on investment.

### **Trial Work**

In 2016, independent trial work carried out by Clearview Consulting at the Temora Research Station show the benefits of Fabstock **Lactation Stubble Mix** to stock grazing cereal stubbles.

Young lambs grazing wheat and barley stubbles that also had access to Fabstock Stubble Mix recorded significant live weight gains over the control group that did not have access to Stubble Mix. Gains on the wheat stubble were approximately 40% over the control group, whereas an increase of 74% weight gain was seen on the poorer barley stubbles.

Another noticeable effect was a much greater consumption of spilt grain and volunteer plants in the supplemented mob over the control group.

The results of the trial show that there was clear return on investment in the provision of Fabstock **Lactation Stubble Mix**.

For the full report, please visit:

<http://clearviewconsulting.com.au/media/INFLUENCE%20OF%20LOOSE%20LICK%20SUPPLEMENT%20ON%20THE%20GROWTH%20RATE%20OF%20LAMBS%20GRAZING%20STUBBLES%20final.pdf>

### **As a note of caution!**

Canola stubbles were also included in the trial with very different results.

Results showed that those with access to Fabstock **Lactation Stubble Mix** actually recorded lower growth rates than those that did not have access to **Lactation Stubble Mix**. It is important to note that the Canola stubble carried a large amount of young, self-sown canola plants and it appears to back up research carried out in 2012<sup>1</sup>.

For this reason, Fabstock recommends that producers exercise caution when considering using mineral supplements on canola stubble.

### **Summary**

When grazing stubbles and mature forages, appropriate mineral supplementation can improve the response of stock grazing such forages.

Independent trial work has shown that Fabstock **Lactation Stubble Mix** is a cost effective tool in achieving production gains whilst grazing stubbles and/or mature forages

For further information or clarification, please do not hesitate to contact the author or your local **Fabstock** reseller.

<sup>1</sup> Dove, H., Kelman, W. M., Kirkegaard, J. A., and Sprague, S. J. (2012). Impact of magnesium-sodium supplementation on liveweight gains of young sheep grazing dual-purpose cereal or canola crops. *Animal Production Science* 52(11): 1027-1035