AusFarm Nutrition Products

Introducing Livestock to Grain

A practical guide for sheep producers

Technical Note: Grain Induction Sheep

Grain feeding can be an effective way to boost production in an animal system, however, if not done correctly, this practice carries significant risks.
Inducting animals onto high concentrate diets is largely a biological process, specifically, a rumen adaption process. If animals are introduced to high concentrate rations too quickly, acidosis (grain poisoning) can result and cause significant loss in animal production and, indeed loss of life. This document is a general guide on how to introduce livestock to high grain diets.

Induction on Trail Feed or Feeders?

Trail feeding is the preferred method of stepping up grain to large numbers of sheep. If sheep numbers are small, hand feeding into a tray may also be suitable. Adjustable feeders can be used to induct animals onto grain, however, extreme care must be taken as there is a large variation between models and designs, and an incorrect adjustment can release grain too quickly causing acidosis. Make sure you read the instructions for each feeder (even feeders manufactured by the same company) and manipulate the feeder accordingly. Some feeders come with restrictors to prevent animals from running from side-to-side along a feeder allowing them to take more grain than required. If feeders come with restrictors, keep them in place until full induction has been achieved.

Using Feed Additives During Induction

Animals can be stepped up without feed additives, however, it comes with a low margin for error and is very risky (not recommended by ANP). Effective feed additives such as buffers and feedlot mixes (ANP's StockMins-Lamb Feedlot, StockMins-Lamb Grower and StockMins-Buffer Blend) and ionophores (e.g. Bovatec) can greatly reduce the risk of acidosis if used correctly whilst at the same time increasing animal performance and health.

Access to Adequate Roughage & Water

It is important to ensure that animals have had access to adequate levels of roughage (to ensure rumen fill) prior to and during grain feeding, especially on lick feeders. Hungry animals tend to gorge and are at a higher risk of acidosis. In general cereal grains should not be processed for sheep and should be fed whole; the opposite is true for cattle. Water is often the forgotten nutrient in animal nutrition, however, its importance cannot be overstated. Water quality is paramount especially in confined intensive feeding situations. ANP recommends having water tested for quality prior to brining animals into confinement.

Close Monitoring

Keep a close eye out for behavioural, physiological and faecal changes that may indicate early signs of acidosis. These include not moving with the mob; standing with an arched back and expelling faecal matter that is watery, grey, contains mucous and sometimes contains blood. If acidosis occurs in one animal it is an indication that others in the mob may also be affected.

Slow and Steady Wins the Race!

The vast majority of acidosis issues occur because the animals have been stepped-up too quickly and the rumen hasn't had the chance to adjust. If small scale acidosis occurs, it is recommended to reduce the grain intake for a few days before increasing at a steady pace again. If large scale acidosis occurs, it is more economical to take the animals off the grain completely for 14 days (feeding quality green feed) before starting the induction process again.

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Beware of Different Grains

If feeding lambs wheat or triticale, step up at 75% of the rate of barley (e.g. with buffers start at 150g/hd/day and increase at increments of 150g/hd/day every second day). Adapt animals over a longer period (at least 15 days) as these grains carry a higher risk of acidosis. Do not exceed 300g/hd/day without an effective buffer present.

Daily Step-up Feeding Guide (*Barley*)

Day	Grain fed with Buffers	Grain fed without Buffers
1	200g/hd/day	100g/hd/day
2	200g/hd/day	100g/hd/day
3	400g/hd/day	200g/hd/day
4	400g/hd/day	200g/hd/day
5	600g/hd/day	300g/hd/day
6	600g/hd/day	300g/hd/day
7	800g/hd/day	400g/hd/day
9	800g/hd/day	400g/hd/day
8	1kg/hd/day	ANP does not recommend feeding barley at a daily rate of more than 400g/hd/day without the use of an effective buffer, as acidosis risks are too high. For more information contact ANP Technical Services.
10	1kg/hd/day	
11	Free Access	
12	Free Access	
13	Free Access	
14	Free Access	