

Correct adaptation of breeding rams to high concentrate diets

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The possible negative effects of receiving high concentrate diets on the health and working ability of breeding rams were discussed numerous times in the past. This article discusses methods on how to grow out rams effectively on high concentrate diets, without the negative effects on health. The key success factor is preventing a decrease in rumen pH due to excess acid being produced by an un-adapted rumen microbial population. This can be effectively prevented by ensuring that the animal's rumen adapts gradually on the high concentrate diet. The three most common methods of feeding rams are discussed.

Rams receive a complete mixed feed in loose form

This approach is the safest since the roughage fraction is mixed with the concentrate. The farmer is therefore in control of the ratio of roughage to concentrate, on the condition that the rams are not able to select out the concentrate portion of the feed. Animals may be adapted on a starter feed with safe and high levels of roughage, after which the level of roughage is lowered to the desired level. Depending on the quality of the roughage, the following minimum levels of roughage are recommended in complete mixed ram feeds.

Type	Starter Feed	Final Feed
Straw	45%	35%
Maize Stalks	50%	40%
Grass Hay	55%	45%
Lucerne Hay	60%	50%

The animals still need to be adapted gradually on the starter feed notwithstanding the higher levels of roughage, for a period of at least 7 days.

Rams receive a complete mixed feed in pelleted form

This is a very popular method of feeding rams, but it may result in problems such as acidosis since the roughage is milled very fine for pelleting, roughage inclusion rates are limited to ensure good quality pellets and since pelleted feeds ferment faster in the rumen than loose feeds (since the starch has been exposed to heat within the pelleting process). The inclusion of a good long-acting rumen buffer such as Acid Buf, is therefore strongly recommended in pelleted complete feeds for rams.

Required Growth Rate	Recommended level of pellets
Slow	1.0 to 2.0% of live weight per day
Average	2.5% of live weight per day
Fast	3.0 % of live weight per day

It is also recommended that rams receive the complete pellets at restricted levels together with additional good quality roughage according to their required growth rate.

Rams receive concentrate and roughage separately (so called cafeteria system)

Although this is a very popular method of feeding rams, it is also the system which holds the biggest risk for digestive disorders. Rams need to be adapted gradually onto the concentrate and it is very important to include a slow-release buffer such as Acid Buf into the concentrate. The recommended adaptation program for any sheep being fed in a cafeteria system, is to start on day one with 100 grams of concentrate per feeding (two feedings per day) and to increase this level by 100 grams per two feedings each day until the recommended level is achieved. Recommended levels for breeding rams are as follows, together with good quality roughage ad lib.

Required Growth Rate	Recommended level of concentrate
Slow	1.0% of live weight per day
Average	1.5% of live weight per day
Fast	2.0 % of live weight per day

By adapting rams correctly, the ram producer ensures that the rams maintain a functional efficient rumen which enables them to perform well under extensive conditions. This ensures happy customers that return in future.

Speak to your nearest Feedtek representative for assistance with correct nutritional programs for breeding rams.

Contact details are available on www.feedtek.co.za or contact us at info@feedtek.co.za or 086 111 5362.