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DAIRY COWS

MODERN DAY ATHLETES REQUIRE A STRICT DIETRY REGIME TO PERFORM AT THEIR PEAK

Today's dairy cows are athletes in every sense of the word and just like sporting athletes they require preparation, ongoing maintenance and a balanced dietary regime in order for them to perform at their best. Given that production is fast catching up with genetic potential, it has never been more important to ensure that these athletes are looked after in order to preserve their longevity. Nutrition status plays a very important role in determining just how well cows perform. Good nutrition can turn a dairy business around in a relatively short period of time. The key to achieving this is often a matter of balancing existing diets.

To be able to perform well in the coming lactation, excellent body condition is imperative both in terms of production and reproduction. Preparation begins 'preseason', in the dry period or ideally, even earlier as the cows are being prepared to dry off. It is essential to make sure that cows are dried off at the desired Body Condition Score (BCS). The ideal condition score at dry off should be 5 to 5.5 BCS and this needs to be maintained over the dry period. One condition score can produce up to 1000L of extra milk per lactation if managed properly. Therefore, it is very important that any lost condition is replaced by the end of the lactation period to guarantee full production availability for the following season. Managing dry cow requirements for energy and protein is crucial to ensuring that body condition isn't compromised whilst cows are dry.

Cows need to transit efficiently from the relatively minor metabolic demands of the dry period to the enormous metabolic and physiological demands of calving and early lactation. Lead Feed and Transition diets are a critical ingredient in this transition period. By maximising dry matter intakes (DMI), they help to reduce stress on cows, maintain energetics (energy levels) and prepare the rumen for the post calving diet and lifting production and reproductive performance.

In the early lactation period, cows should reach their peak production at 6 weeks post calving. At this time appetite is low and DMI is reduced. Energy is mobilized from body condition reserves in order to meet production demands. At about 12 weeks post calving, the expectation is that cows will be back in calf. From the point of calving, production drives DMI until after peak when DMI drives production.

As DMI is a major factor in determining the level of production, it is important to get the diet right. The principal component of a cow's diet is pasture. However, combining good pasture utilisation with quality supplementary feed intake is a vital element towards increasing production and profitability.



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Pasture quality and availability has a major impact on production levels. The following example illustrate the point. The first is based on 600kg cows consuming pasture alone:

Scenario A:

Poor quality pasture at 50% Neutral Detergent Fibre (NDF) & 10MJ/kg ME & Milk Price @ 0.28c/l

DMI = 14.5kg Total ME = 145MJ Litres = ~15L Gross \$* = \$4.20/cow

Scenario B:

Good quality pasture at 45% NDF & 11MJ/kg ME & Milk Price @ 0.28c/l

DMI = 16kg Total ME = 176 MJ Litres = ~21L Gross \$* = \$5.90/cow

If we were to introduce a supplementary feeding regime into the diet, the benefits become clear:

Scenario A:

Poor quality pasture at 50% NDF & 10MJ/kg ME & Milk Price @ 0.28c/l + 4kg Wheat @ \$420/T

DMI = 17.4kg Total ME = 186 MJ Litres = ~23L Gross \$* = \$6.44/cow \$ after Grain* = \$4.76/cow

Scenario B:

Good quality pasture at 45% NDF & 11MJ/kg ME & Milk Price @ 0.28c/l + 4kg Wheat @ \$420/T

DMI = 19kg Total ME = 217 MJ Litres = ~29L Gross \$* = \$8.12/cow \$ after Grain* = \$6.44/cow

** Pasture cost not incorporated in above figures*

Feed additives can assist with optimising performance and growth whilst improving fertility and herd health. High quality feeds are vital in managing condition loss whilst at the same time providing sufficient energy to meet production demands. This regime is needed to ensure production is maintained and positive weight gains occur. A balance of high quality cereal grain, protein, fibre and macro and micro minerals will help to ensure that cows optimize their performance through this critical time. It's important to remember that every extra litre achieved at peak can equate to an extra 200 litres over a lactation period. So if milk price averages 0.28c/L that equates to \$56/cow and over 300 cows this certainly adds up - \$16,800.



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Have your cows been achieving their maximum potential?

There are a few quick nutritional checks that will give you an indication.

- How do your pastures look before and after grazing?
- Is there any residual feed left in the bail?
- Are there fluctuations in daily milk yield patterns?
- What is your Milk Protein %?
- What is your Milk Fat %?
- How many cows are chewing their cud?
- What is the manure consistency like?
- How is your herd's behaviour in general ie. Do they seem lazy?
- What is your average Body Condition Score?
- How is your reproductive performance?

A supplementary feeding regime is only part of the big equation but it plays a vital and significant role in achieving production and fertility goals. By increasing DMI and balancing overall cow diet with supplementary feeding, production and performance is lifted. Likewise, the addition of a balanced transition or lactating ration to the overall diet helps to manage the change in body condition as well as reducing stress at calving and preventing metabolic problems.

Irwin Stockfeeds supply a variety of products for pasture based herds which include grain mixes, pellets, meals, whole grain, transition diets, calf products and fully tailored custom rations. Irwin Stockfeeds service and competitively priced feeds are complemented by a team of nutritionists who give informed advice on a feeding regime that will best suit an individual farm and herd.

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