Transition Cow Management

By Dr Alastair Boyle,

Dairying Technologist, CAFRE (Greenmount)

Introduction

The aim for any transition cow is to calve down, ideally with no assistance, produce a healthy calf, have no health issues, start cycling again leading to a pregnancy and of course, produce high quality milk. In order to achieve these aims, management towards the end of the previous lactation and the dry/transition period are all critical.

Body Condition Scoring

Body condition scoring (BCS) is a useful tool to minimise problems post calving. The target BCS post calving is 2.75-3. In principle, cows should be dried off at the same BCS they calve at, thus in order to achieve this, condition scoring should occur 8-10 weeks prior to drying off. In practical terms not all cows will fall into the target BCS, so corrective action should be taken with cows identified as being too thin or fat. Cows which calve excessively fat (3.5+) are more predisposed to problems such as poor dry matter intakes, impaired fertility and are four times more likely to take milk fever. Conversely, research from AFBI indicated that thin cows (<2.25) have increased risk of being culled during the first 60 days post calving.

Nutrition

The dry period can be subdivided into two specific stages, which are the far-off (week-8 to -3 pre calving) and close-up (week -3 to calving) periods. Provided cows are in the correct body condition, the aim in the far-off period is to keep them full without oversupplying energy. The typical energy requirement at this stage is 90MJ/day. For cows indoors this can be achieved by feeding a high fibre/low energy diet, i.e. stemmy silage, which provides bulk for the rumen. If outdoors, manage cows on low grass covers and potentially supplement with grass/ silage and straw. During the close-up stage energy requirement increases to around 120MJ/day, so at this stage think about increasing the energy density of the diet potentially through feeding pre calver concentrate. It is also important to feed forages which are low in potassium (K) to minimise milk fever risk (grass/silage grown from soil low in K or wholecrop). A mineral analysis can determine the level of milk fever risk for the particular forage(s) being fed. Remember, close-up cows should be housed a minimum of three weeks before calving, as grass is particularly high in potassium. Throughout the dry period cows should be supplemented with dry cow minerals.

Cow comfort, stress and lameness

Cow comfort can sometimes be overlooked, yet it is equally important as other aspects of dry cow management, particularly in the close-up period. Ensure comfort in both cubicles and lying surface is at least similar to the milking herd. Other aspects to consider are stocking density (≤85%), feed space (90cms/cow), cubicle hygiene and provision of clean water. Furthermore if practically possible, minimise the number of animal movements, particularly in the last 10 days of pregnancy. Research has shown that mixing pre calving heifers with dry cows in the close-up period can lead to reduced bullying of heifers when entering the main herd, so this may be an option if practically feasible. Furthermore, ensure cows receive a foot trim at drying off and maintain footbathing during the dry period.

Measure to manage

Around calving some 30-50% of cows may experience production diseases such as milk fever, retained cleaning, displaced abomasum and metritis to name a few. During the calving period if you are experiencing high levels of milk fever, diet is an aspect to examine. In cases where high levels of diseases are observed in post calving cows (see Table 1) discuss with your vet/nutritionist. At calving ensure the pen is clean and well bedded to reduce disease transmission to calf and udder. Also, after calving ensure fresh feed and water (ideally luke warm) are immediately available to the cow.

Table 1- Targets for measuring transition success

Disease	**Target**
Milk fever	3-5%
Retained cleansing	3-5% (twinning can influence this)
Displaced abomasum	<3%
Mastitis	<2 in 12 cows calving in first 30 days in milk
Culls in first 60 days	<3%

Summary points

BCS cows 8-10 weeks prior to drying off to achieve target BCS of 2.75-3

If possible group cows into close and far off and feed accordingly i.e. palatable bulky forage low in potassium

Carry out foot trimming and continue to footbath

Feed a dry cow mineral

Ensure suitable dry cow accommodation to maximise cow comfort

Minimise stress

Talk to your vet/nutritionist if transition diseases are a problem