



## ACTISAF PRIMES COWS FOR THE LACTATION DIET

Camarthenshire dairy farmer Simon Davies milks 300 pedigree Holstein cows together with 250 followers and 20 young bulls on his 300-acre farm with his wife Sian and sons Isaac and Elliott. Their all year-round calving herd yields an annual average of 11,000 litres with 4.1% butterfats and 3.2% protein, with milk supplied to Müller Wiseman Dairies.

The cows are fed home-grown grass silage with purchased forage maize, as well as a compound and a bespoke lactation blend provided by Bibby Agriculture. Cows are fed for maintenance plus 36 litres of milk provided in the PMR, and any additional nutrients for cows yielding over 36 litres is fed through concentrate in the parlour.

Cows are dried off 45 days prior to calving. Bibby's Transition Gold dry cow blend is introduced 21 days before calving at a rate of 3kg/h/d. The blend contains high levels of Actisaf and Safmannan to prepare transition cows for the demands of early lactation, as well as supporting immune status and production of high-quality colostrum.

"The bespoke dry cow ration provides cows with a smooth transition to the milking cow diet. Transition Gold primes the rumen enabling them to cope with high intakes and any possible immunity challenges post-calving," explained Anwen Jones Bibby Agriculture Dairy Development Manager.

"Actisaf and Safmannan have a big role to play in this, giving the cows the best start you can give them. You wouldn't run a marathon without any training, and the cow is no different. Their rumen needs preparation for a successful early lactation, and this comes from the dry cow diet."

A multi-cut system provides five cuts a year of grass that is excellent quality that can pose a problem for rumen function. "Forage maize is available to us for around 10 months of the year, and we were seeing dips in performance from minor acidosis when it was removed from the diet in the summer. However, including Actisaf in the diet has helped counter this problem," Simon said.

"Carwyn James from Bibby suggested that we start adding Actisaf to our milking cow diet in January to help with rumen function and deal with diet changes, and you could really see the difference in their behaviour, their manure and, more importantly, their yields. Since adding the Actisaf our butterfat levels have risen from 3.9% to 4.1%!"

"After seeing those results, we decided to also make a bespoke dry cow diet with Bibby that includes Transition Gold, which was another successful move. Milk fever rates have dropped to virtually zero and the cows seem really content with good rumination, cudding rates and dung consistency."

Bibby Agriculture encourages all of their farmers to think long-term when it comes to making decisions about feeding all members of the dairy herd. "Actisaf provides a safety net during diet transition, and the high yielding Castellhyfryd herd is a great example of this. We include Actisaf in the youngstock compound, transition blend, and throughout the dairy diet both in and out of the parlour," concluded Carwyn.

"The results at Brynhyfryd speak for themselves - excellent yields are achieved coupled with impressive milk solids."

### Contact us...

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# FEEDING THE DRY COW FOR A SUCCESSFUL LACTATION

The three weeks pre-calving and the first three weeks of lactation also known as the transition period are the springboard for good productive and reproductive performance for the next lactation.

It is important to focus on cow nutrition during this time to avoid production and health issues in the subsequent lactation, including milk fever, retained placentas, DAs, ketosis, high SCC, mastitis and uterine infections.

Allow 8-weeks for typical cows, or up to 10 weeks for first lactation cows if they are under condition, to provide sufficient time to prepare her for the next lactation. If cows have had mastitis or high cell counts during the previous lactation then consult your vet on appropriate dry cow therapy, to adequately rest and repair udder tissue during this period.

## Body condition

Cows should be assessed for body condition in the last 60 days of lactation and ideally be dried off at condition score 3.0. If cows are over- or under-conditioned at calving, they will have lower DMI, lose more bodyweight in early lactation and have lower fertility than a comparable cow calving in at score 3.0.

Alternatively, cows with a BCS >3.50 at calving are more likely to develop ketosis and will be at greater risk of developing displaced abomasum, metritis and retained placenta.

Feed intake is king for transition and early lactation cows. Try to avoid long dry periods on ad lib high quality forages for cows at BCS 3.0. Cows at BCS 2.5 – 2.75 may require five weeks of quality forage with supplementary feeding to get to BCS 3.0. Where possible, separate cows into management groups based on body condition score to ensure appropriate nutrition.

Body condition should continue to be monitored post-calving. Research consistently shows that BCS loss of less than half of one point (0.5) during the first 30 days of lactation is “the sweet spot” to jump start ovulation for the next cycle.

## Immunity

The immune system of the transition cow is challenged for many reasons including the onset of calving, metabolic changes from the onset of milk production and the presence of pathogens in the uterus, teat canal end and tip.

In many transition and early lactation cows the immune system can be overstimulated and a prolonged response into early lactation can drain up to 2kg of glucose per cow that could be used for milk production (Kvidera et al. 2017). Such responses can reduce DMI and milk yield and exacerbate body condition score loss, leading to reduced fertility and increased susceptibility to disease.

## Diet and feed

As usual it is essential to get forage analysed for major nutrients, minerals and trace elements to know what you are feeding. In the first five weeks of the dry period, limit energy intake to 110 MJ ME and increase it to 120 MJ ME for the last 3 weeks pre-calving for a typical 650kg cow.

Protein is often overlooked in transition diets, but it's important that cows get enough of this vital nutrient. Target 1,000 to 1,200 grams of metabolisable protein throughout for foetus growth, udder tissue repair and colostrum formation. Feeding a quality protein source with a high bypass protein content is advisable.

The key objective is to maximise intake of a low energy dry cow ration. Dry matter intake (DMI) will typically be 13kg DM for far-off dry cows at 650kg live weight, although at 10 days pre-calving intakes can drop back by up to 30 per cent due to the hormonal changes associated with the onset of calving.

Feeding 2 kg of a dry cow nut 3 weeks pre-calving can help prepare the rumen for the lactating diet.

## Calcium balance

Calcium balance in the cow is critical to avoid milk fever in early lactation, and so you need to stimulate the cow to mobilise calcium reserves from her bones.

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# HELP YOUR HERD MANAGE THE TRANSITION PERIOD WITH ACTISAF



**The transition period is demanding, as nutrient requirements increase whilst dry matter intake is reduced, leading to body weight loss through negative energy balance. What's more, the immune system of the cow is challenged at this time and typically a cow's immune response elicits a non-specific systemic inflammatory response in the cow, which requires energy – something the cow is lacking at that time.**

Ultimately, this increases the risk of metabolic disorders and problems such as reduced milk yield and poor fertility, which impacts your bottom line. Combine this with the potential for poor rumen function caused by the change from transition to lactating diets and you have a problem!

Luckily, research proves that Actisaf can help. Feeding 10g of Actisaf live yeast 21 days pre-calving and 21 days post-calving

lowers the risk of poor rumen function and acidosis, increases propionate production, providing the cow with more much-needed energy, helping to reduce negative energy balance and subsequently improving performance.

Can you afford to be without Actisaf in your transition diets?  
Find out more at [www.phileo-lesaffre.com](http://www.phileo-lesaffre.com) or call us on  
**028 9334 3900**

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Options include:

- Full DCAD diet for the 3 weeks pre-calving
- Partial DCAD diet for the whole dry period
- Feeding 25-30 grams of magnesium (50-60 grams of Cal Mag) to acidify the diet

Where possible, feed silage that is low in potassium or dilute potassium in silage by adding straw, whole crop or maize. Feeding 25-30 grams of magnesium (50-60 grams of Cal Mag) is another effective strategy against milk fever.

### Other trace elements

Trace elements such as selenium, copper, iodine, zinc and manganese are important to prevent metabolic disorders. Vitamins including A, D & E are also support immune function, calcium absorption and avoiding issues such as retained placentas.

### Preparing the rumen

By week seven of the dry period the absorptive surface of the rumen has diminished by around 50 per cent, as the rumen papillae shrink during this time. This, combined with a three-fold increase in the demand for energy between day 250 of pregnancy and day 4 of lactation can result in negative energy balance and start the process of fat mobilisation.

Dry cow feeding should, therefore, focus on the development of the rumen papillae, the adaption of the rumen microbial population to the lactating diet and the maintenance of dry matter intake.

Increasing the energy density of the diet by introducing concentrate or cereals approximately two weeks pre-calving will help to develop the rumen papillae, increasing the ability of the rumen to absorb nutrients. It will also help to maintain energy intake as dry matter intake falls at this time and will condition the rumen microbes for the forthcoming lactating ration.

### Adding Actisaf to the diet

Actisaf live yeast helps condition rumen microbe populations, easing the transition between dry and lactating diets and minimising the risk of digestive upsets such as acidosis during the transition to lactation. Actisaf is the only live yeast scientifically proven to provide a double benefit – increasing fibre digestion in the rumen and minimising the build-up of lactic acid, a key contributor to the development of acidosis.

Feeding Actisaf improves fibre digestion, which is particularly important at the transition stage as it releases more energy from forages, minimising excess body weight loss in early lactation.

# BUSINESS UPDATE

We are pleased to share our new company logo, which was released earlier this year to reflect our new name “Phileo by Lesaffre” and to better reflect our relationship with our parent company, Lesaffre.



### Who is Lesaffre?

Lesaffre is the world's leading producer of yeast and yeast products, based in Lille, France.

The company develops, manufactures and sells yeast for use in the baking, food, drink, health care and biotechnology sectors. Started as a small family business in 1853, it has grown into a multinational company that is committed to sustainably feeding the planet.

In close collaboration with its clients and partners, Lesaffre employs 10,500 people in about 80 subsidiaries based in more than 50 countries, with a turnover of more than €2 billion.

Its state-of-the-art Marcq-en-Barœul plant in Northern France is the largest yeast production facility in the world, producing yeast sold in over 100 countries for use in baking, biofuels, fermented beverages and human, animal and plant nutrition.



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