



## ACTISAF IMPROVES FORAGE UTILISATION FROM SILAGE AND GRAZING...

The cows have always been good at utilising forage at Brook House Farm near Whitchurch, Shropshire, and, when a problem arose with silage quality, introducing Actisaf live yeast significantly improved cow performance across both silage and grazed grass.

Paul Bradbury farms in partnership with his wife, Dee, and son, David, milking 120 Holstein Friesian cows, which calve all year around, with average yields of 8,500 litres.

“Our aim is to drive our system from a foundation of quality forage,” explains Paul. “We graze whenever possible and have invested in tracks to help increase grass utilisation. Grazing is cheaper than silage and we know from analysis that it is a high-quality feed, in part because of our reseeding policy, although quality can be inconsistent across the season and, depending on the weather, even from day to day.

“We’ve also put emphasis on producing the highest quality silage, regularly reseeding and analysing silage to help us address problem areas. Last winter we noticed that the cows just weren’t performing as we’d expect and I knew there were issues with the grass silage. Their dung was loose and fizzy and they just looked uncomfortable. You could tell that rumen function had become an issue,” Paul explains.

Wanting to help cows manage the challenge of diet transition when they move from silage to grass and dealing with inconsistencies within the diet led Philip Jackson (pictured above right) from HJ Lea Oakes to suggest to Paul that he consider the inclusion of Actisaf live yeast in the cows’ blend.

“The Actisaf live yeast works in a number of ways,” explains Philip. “It removes oxygen from the rumen and stabilises the bug population during periods of diet change or nutritional inconsistency that are so prevalent when cows are grazing.



“It also promotes the right kind of bacteria in the rumen - the fibre digesters and the lactate utilising bugs - which stabilises the rumen pH. All of this leads to a more consistent rumen environment, ready to make the best use of the grazed grass, forages and concentrates in the diet.”

Including Actisaf in the diet certainly seemed to address rumen function and so Paul continued using it when the cows went out to grass last year. This was to help manage the diet transition, and the inevitable variability in energy and protein content of grazed grass, as well as the range in dry matter intakes at grazing, which can result in inconsistent yield, fertility and milk constituents.

“The cows perform well on the yeast,” says Paul. “We’re not feeding them any more forage than we used to but they just seem to be able to make better use of it. Milk from forage figures have risen to 4,291 litres and you can tell from the way the cows behave that rumen function is good.”



## TOP TIPS FOR TURNOUT TO GRASS...

**Making the most of high quality grazed grass and efficiently converting it into milk solids is critical for any profitable dairy enterprise. As the grazing season approaches here are some top tips to making the best of spring grazing, highlighting some of the factors that can cause issues...**

**Gradual turnout** - turning cows out to grass creates a substantial change in diet for the cow. It takes around three weeks for the bugs in the rumen to adapt to significant diet changes such as this, so it is important to manage the transition to grazing gradually. Even a few hours of on/off grazing by day, when weather conditions allow, will mean that the rumen bugs can adapt to fresh grass. Cows should be able to consume 5kg DM in approximately 3 hours in suitable swards and weather conditions.

**Dry matter intakes** - The moisture content of grass can vary significantly in spring, typically from 80-90% moisture depending on the weather, and this can have a major impact on dry matter intakes. For every 1kg of fresh grass a cow eats at 15% DM she will only be consuming 150 grams of dry matter so this means that a cow estimated to consume 15kg of grass dry matter needs to eat 100kg of fresh grass. Remember, there is no energy in the water/moisture content of grass, therefore, it is important that you don't overestimate what dry matter intake a cow can take from grazing, or performance and fertility will be compromised.

**Excess crude protein** - Lush, leafy spring grass can often have a crude protein content in excess of 250g/kg DM, particularly after fertiliser application, and this is mainly rumen degradable protein (RDP). Rumen microbes are unable to utilise this much protein from high grass intakes, particularly if there is a shortage of fermentable energy available to them, and so excess RDP is broken down into ammonia in the rumen, and then absorbed into the blood stream and converted to urea in the liver. Elevated blood urea nitrogen levels (BUN) from excessive crude protein in the diet can increase body condition score loss, reduce fertility and impact on hoof health.

**Buffer feeding** - During the transition to grazing when grass is gradually being built up in the diet, high D-value forages such as maize and/or grass silage should be fed while cows are initially in by night and out by day, to ensure dry matter intake is maximised. Only forages with a high energy content and digestibility should be fed, so that cows are supplemented to their required energy requirements and grazed grass is not substituted. Starch-based forages such as maize silage are a great combination with grass, as the use of nitrogen in the rumen is enhanced and microbial protein synthesis is increased due to the fermentable energy being supplied by the maize starch. This will help to maintain milk constituents and protein, in particular. Buffer feeding should also be strategically implemented during periods of wet weather throughout the grazing season when required grass dry matter intakes cannot be maintained due to low grass dry matters. In order to maximise the use of grass during wet weather, buffer feed should be fed after cows have grazed and ideally a few hours before milking.

**Highly digestible grass swards can challenge rumen function** - Lush spring grass tends to have a high proportion of leaf to stem, resulting in low structural fibre levels in the overall diet. This lack of 'scratch factor' can impact on cudging rates and saliva production, further compromising rumen function. While the nutrient analysis of grass can vary wildly, this lack of structural fibre can be accompanied by high sugar levels - often more than 18% during sunny, dry weather. High sugar levels are great for rumen fermentation, promoting good milk proteins and strong yield, but when supplied in excess in combination with low structural fibre they can challenge rumen function, leading to sub-acute rumen acidosis (SARA). Consequently, butterfat % and milk protein % can be compromised as a result of the change in rumen fermentation, whilst prolonged challenges can impact on fertility. High levels of unsaturated fatty acids in spring grass can also cause butterfat % to be reduced, so lower butterfat doesn't always mean SARA is a problem, however.

**Compound feeding** – It is important that compound feed is fed to top up the dry matter that grass and forages do not supply in order to match the energy requirements for a given yield. It is also important that the nutrient content of the compound feed balances that of the grass to optimise rumen fermentation and maximise performance. Aim for a feed that has around 14-16% crude protein, a high digestible fibre content (such as sugar beet pulp and soya hulls), a balanced source of cereals including maize and barley and a source of bypass protein. It should also contain minerals that grass is deficient in, for example magnesium, which as well as having a vital role from a grass tetany prevention point of view, can lead to poor rumen muscular function, and hence sub-optimal rumen function, if deficient.

**Monitor what the cows are telling you** – assess rumen fill 2-3 hours after milking to determine whether adequate grass has been allocated; monitor cudging rate – you are looking for more than 65% of the herd to be lying down chewing the cud 2-3 hours after milking; check dung consistency – loose, bubbly dung with undigested fibre in it is indicative of poor rumen function, as is the presence of cud balls in collecting yards or cubicles; monitor condition – cows losing body condition can point to insufficient feed intake, a possible metabolic disorder, health issue or sub-optimal rumen function.

**Milk quality** – Monitor bulk tank milk collections for average yields and constituents. A fall in butterfat or protein of 0.3% or greater in one week is a warning sign for poor rumen function and the occurrence of SARA. It is also useful to keep an eye on the butterfat to protein ratio to ensure this falls within the optimum range of circa

1.2:1. Look back at last year's individual milk records for cows at different time points during the spring grazing season to see what percentage of the herd had butterfat to protein ratios outside of the optimum range to identify bottlenecks ahead of this season. This should be an ongoing process this spring after each milk recording, as it is more accurate than looking at bulk tank records, which are a more general initial indicator.

**Feed Actisaf live yeast** – Adding Actisaf live yeast to your cows' ration will reduce setbacks in performance at turnout by helping the rumen bugs adjust to grazed grass and improving rumen function. Actisaf also reduces the risk of SARA, both at turnout and throughout the grazing period. Actisaf helps to stabilise rumen function and promotes milk solids and milk yield and can be included in compound feed or added to blends or on-farm mixes as a farmpack.

## SUMMARY

- Turning cows out to grazing is a substantial change in diet and it takes around 3 weeks for the rumen bugs to adapt. Gradual turnout will help.
- Spring grass can challenge the cow as it is highly digestible, with low structural fibre and can have excess crude protein. Dry matter intakes can also be variable.
- Supplementation with Actisaf live yeast helps stabilise rumen function, reducing setbacks.



Actisaf live yeast supports rumen function during the critical change from an indoor-based diet to grazing, and helps cows cope with the variability in grazing conditions from day-to-day and throughout the season.

Find out more at [www.phileo-lesaffre.com](http://www.phileo-lesaffre.com) or call us on 028 9334 3900

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# ACTISAF MINIMISES DIPS IN BUTTERFAT % DURING THE SECOND GRAZING ROTATION

Many spring-calving dairy herds will see milk butterfat results slide when cows graze on lush spring grass, due to the lack of structural fibre in the diet, and that was certainly something that dairy farmer, John Power (pictured), had experienced before he started to use Actisaf live yeast.

John farms in partnership with his parents, Maurice & Helena, at Lismateigue, Knocktopher, Co. Kilkenny. Together they run a spring-calving dairy enterprise alongside a successful dairy calf to beef operation.

Cows typically start to calve in mid January and John aims for a compact calving period. "This spring we'll calve down 210 dairy cows, including 20 per cent heifers," John explained. "Fertility is generally good, with only 13 empty out of 223 served in 2016, and 80 per cent of the cows will calve before March 17th. All calves are reared on the farm, with British Friesian heifers being reared as replacements and British Friesian bull calves and Aberdeen Angus crosses being reared in our beef enterprise."

Grazed grass forms a big proportion of the herd's ration and John aims to include grass into the cows' diet early in the spring. The Powers aim to produce high D-value grass silage as this is the only forage fed to milking cows while they are still indoors and they continue to feed silage while cows are being transitioned to grazing through the spring. Cows are fed a compound feed through the parlour and are stepped up to a flat rate of 5 kg/head/day post-calving and then are fed at levels of 5-7kgs depending on milk yield and grass supply.

Grass is introduced as weather and grazing conditions permit and levels of grass in the diet are built up gradually. John's grazing block extends to 130 acres and he manages grass on a rotational basis, budgeting grass according to supply and demand from the milking herd.

"We generally start the second round of grazing in early April and we used to find that average milk butterfat percentage dropped considerably around this time, down to around 3.3 per cent," he explained. "We thought that a lack of fibre was the issue, so we tried offering the cows straw, but the results were disappointing and butterfats didn't improve."

Following advice from Michael Barron and Heather Peppard at Brett Brothers, in the spring of 2016 John decided to add Actisaf live yeast to his cow diet, and introduced it ten days before the end of the first rotation, at a rate of 4-6 grams per head per day. The Actisaf was incorporated within Brett's Supreme Breeder nut to allow a flexible feeding rate. Cows continued to receive grass silage at this time, as they normally would at that time of year.



"Actisaf significantly improves rumen efficiency, leading to increased digestion and utilisation of grass, and promotes a stabilising effect on rumen pH, reducing the threat of sub-acute rumen acidosis or SARA, and improving milk yield and milk solids," explained Heather.

"Milk solids are often affected on lush spring grass as a result of digestive upset in the cow, and so it is important to be proactive and add Actisaf early in the spring, ideally before turning cows out, rather than waiting until a problem occurs."

"Actisaf certainly helped improve milk solids," John concluded. "Although milk yields were down slightly due to the poor weather and a large proportion of heifers in 2016, butterfats were consistently between 0.12 and 0.26 higher [April 2016: 3.87% vs April 2015: 3.61%] and we didn't see the variability in butterfat that we would typically see during the grazing season. We also noticed that dung consistency was better, with firmer dungs, which suggested better rumen function. We will definitely be using Actisaf again in 2017."

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