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feeds for a better future
How NWF can help its farmer customers in challenging times

By Andrew Downie, NWF Managing Director

It’s no secret that UK farmers are again facing a tough time, with milk price in the headlines once more. NWF Agriculture is keenly aware of what this means for our customers. Through our team of technical sales specialists on the ground nationwide, NWF is uniquely placed not just to understand these tough conditions but also to help farmers weather them.

A natural response to tightening margins is to cut costs where necessary. There’s a fine line to be negotiated, however, between prudent cut backs and false economies.

Make the most of our free advice

One area where savings really can be made is to take a close look at the cost of technical advice going in to your business. In tough times, paying high consultancy fees is neither desirable nor necessary; NWF’s team of specialists – whether out in the field or at our head office in Cheshire – has years of experience and knowledge, and it is all available for free!!

These specialists have seen every type and size of farm business in their day to day work and benchmarking has become their business, and that is why NWF has extended its forage and soil analysis offering. As you can read on page 8 of this newsletter, soil is the engine which drives not just crop production but also has a profound impact on livestock too.

Identifying imbalances in trace elements and minerals in both forage and soil provides the opportunity to tailor ration advice and supplements to ensure optimum performance. While it can be tempting to look at cut back on supplements, there is a risk in areas where the soil and forage is deficient, of creating a false economy in areas such as fertility.

AHDB Dairy estimates costs due to poor fertility in lost milk production, fewer calves, excessive culling and additional veterinary treatments to be around £25,000/year in the average-performing 100-cow herd, equivalent to over 3.5p/litre. While there are a host of factors involved in poor fertility, making sure mineral deficiencies aren’t among them is common sense and good business.

Forage and soil analysis service extended

Making the most of what you already have is sensible for any business, and that is why NWF has extended its forage and soil analysis offering. As you can read on page 8 of this newsletter, soil is the engine which drives not just crop production but also has a profound impact on livestock too.

Jointed-up thinking on nutrition and management

NWF is rightly proud of its extensive range of high quality feeds for the ruminant sector. We all know, however, that achieving high milk yields, target daily liveweight gains or consistent carcass quality is about more than just the right nutrition.

Forage is often the key driver of both growth and performance outcomes in dairy farming. For example, one of our customers has seen two litres per day increase in milk yield when having a higher quality of grass in their diets, in addition to improved health and fertility outcomes for the herd.

Our team of sales specialists can work with you to identify areas of improvement without adding input costs. From our Cow Signals workshops to on-farm seminars, NWF is committed to working in collaboration with our customers to deliver real results on long-term viability.

It is in our interest and yours to see your business flourish – so don’t hesitate to ask how we can help.

When cows choose to milk voluntarily, labour time can be used for essential tasks such as heat detection, rather than collecting and moving cows about.

“Nutrition plays a key role in ensuring cows go to the robot voluntarily, a critical step to making robots pay at a time of low milk price. Partial Mixed Rations (PMR) are the best way to encourage the cows to visit the robot voluntarily,” says Abbi.

“Energy drives cows to the robot so if we increase the energy down the barrier using a Total Mixed Ration (TMR) we usually need to collect more cows, as illustrated in figure 1.”

Case study: making it work

CASE STUDY FARM

• Milking 130 cows with two robots.
• Had previously been milking twice a day, averaging 28 litres.
• Following adjustment period to robot, yield average rose to 36 litres.

This farm was originally feeding one tonne of an NWF concentrate daily, at a cost of £220/tonne. This came to £6,600 per month; with yield at 28 litres at 22ppl, they were receiving £800.80 per day in milk, £24,024 per month,” says Abbi.

“The concentrate was increased to 1.4 tonnes per day, equivalent to a concentrate feed cost of £9,240 per month. As yields had risen to an average of 36 litres, still at 22ppl, this increased the milk cheque to £30,888 month – while monthly concentrate costs had risen by £2,640, increased yields meant £6,864 back in milk, leaving the business a net increase of £4,224 per month,” says Abbi.

NWF have a wide range of high quality feeds available for robotic systems. Contact your local sales specialist or call 0800 756 2787

Figure 1. Effect of total mixed ration vs partial mixed ration on cow activity to the robot

Design is key

Simply installing a robot will not lead to improved production and margins, of course. Because housing design is so critical, some units also make the decision to upgrade or replace existing housing to maximise the benefits of the robot – something which needs to be accounted for when considering investing in a robot.

“The robot has to be visible and easy to reach from anywhere in the barn. Ideally, there should be at least 5m between the robot and any obstacle; the minimum space required for entry into a robot is 1.2m,” says Abbi.

“Cows need unlimited access to feed, and should ideally all be able to feed at the barrier at the same time, to reduce bullying or intimidation of lower ranking cows and heifers. Floor surfaces should be non-slip and water availability must be considered when designing housing.”
Winter 2015/16 – if we can actually call it a winter – has seen record temperatures and rainfall across the UK, and the unseasonably mild and wet weather has had a dramatic effect on pastures. The North West has been hit particularly hard; heavy rainstorms have repeatedly battered the region, causing large-scale flooding and putting huge swathes of farmland under water; some fields in the region have been waterlogged off and on since the beginning of November.

The outcome of such a prolonged period of precipitation is that some highly productive grass leys will have been irreparably damaged and will have to be renovated or replaced to ensure future forage productivity. After months of being submerged, soil will be compacted due to the weight of the water lying on it and valuable nutrients will also have been lost to leaching.

In other drier parts of the country the weather has created different challenges. The incredibly mild temperatures and putting huge swathes of farmland under water; some fields in the region have been waterlogged off and on since the beginning of November.

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The best way to assess the extent of any damage is to dig a pit to around 30cm or to the depth of any pan. Take a close look at the soil structure: if the grass roots aren’t penetrating below 10cm then you are dealing with a clear case of compaction.

Another sign is the water content of the soil. If the soil is bone dry from 7-15cm down then you have a compaction problem.

“Until you have addressed compaction, there is little point investing in anything else grass related. Compaction can drastically affect the growth rate and rooting structure of newly sown grasses – reducing productivity by 10-20%,” warns Mr Warner.

“Once any compaction has been dealt with, farmers can start to think about tackling any pH, phosphate and potash problems. Soil pH can have a massive impact on grassland success and knowing your nutrients is critical. P is primarily associated with energy transfer within plants and is crucial at the establishment phase for root development. And K plays an important role in water regulation within plants."

Looking further ahead, and as a general rule of thumb – whatever the weather – farmers should soil sample every three to four years and build slurry and fertiliser applications into an annual nutrient management plan. They should also make sure they apply maintenance phosphate for silage cuts at soil P index 2, advises Mr Warner.

Failure to apply maintenance P dressings on a three-cut silage system can reduce yield by 10% at soil index 2. Typically a three-cut system will require 80kg P2O5/Ag split over the three cuts.

For further advice on field renovation or on varieties and mixtures suited to different farming systems and parts of the UK, contact your NWF sales specialist or email info@baruk.co.uk

You can also request a copy of the Barenbrug Good Grass Guide – a handy, pocket-size booklet designed to help UK farmers index the quality of their fields and take remedial action to improve pasture productivity and yields.
Dry cow management at grass

As spring arrives, so does the glorious lush grass to drive up milk yields. Turnout isn’t just for cows in milk; of course; running dry cows at pasture reduces labour and feed costs, as well as helping managing swards effectively.

Getting dry cow management right is critical to both fertility and milk production, particularly in the transition phase 21 days before calving. The aim of the dry period is to allow cows to “rest, repair and prepare”, ready for optimum performance in the next lactation.

**Rest, repair & prepare**

Because the dry cow is “resting” from lactation, she doesn’t have the production demands on her nutritional requirements that a cow in milk does. Her energy requirement is around 45% of that of a 35-litre per day cow.

However, in order for her to repair from her previous lactation, correct nutrition (particularly through minerals and vitamins) is essential to drive a competent immune system. It also reduces her risk of production diseases such as milk fever, metritis and ketosis.

The challenge, therefore, is to provide her with a diet which meets her nutritional requirements (but does not overdo them, especially energy) while maintaining adequate rumen fill. Labour and time constraints mean buffer feeding, or permanent pasture grazing, is the only way to meet her nutritional requirements (but does not overdo them, especially while we try to reduce all costs to the business).

There are a number of possible approaches:

1. If you operate a paddock grazing system, run dry cows after the dairy herd – this allows them access to good grass, but not in plentiful supply. It also tidies the sward.

2. Supplement denser grazing with round bale silage – remember that grass (be it grazing or silage) does carry a significant amount of calcium, which should be restricted during the dry period to prime the mobilisation of body reserves of calcium post-calving. It would be very worthwhile at this point to feed a calcium binder such as Calfix, or a complete dry cow compound such as NWF Dryfix.

3. If necessary, straw can also be fed as a buffer during grazing – but remember that cows are very particular about straw consumption, and a feeder can remain full for days where the straw has been picked over. To maintain intakes, chop or mill the straw to reduce the selection process. There is less of a demand for calcium binding in this situation, and a dry cow compound such as NWF Drytime will deliver sufficient protein to drive repair and colostrum production, alongside regulated mineral and vitamin supply.

Investing in dry cow management will set cows up for a more successful, more efficient, and most certainly less costly next lactation. With the pressure on margins as high as ever, keeping a close eye on your dry cows essential.

How to maintain milk solids in big volumes

Continuing pressure on the standard litre milk price drives us to earn as much as we can from the milk we produce. Even on liquid milk contracts, there are certain milk solid penalties to milk price to be avoided, especially while we try to reduce all costs to the business.

As the time for spring grazing approaches, the biggest risk to milk solids at this time is to butterfat. Those with a 3.7% butterfat threshold risk hundreds of pounds off the bottom line of the milk cheque, and those on constituent contracts have a massive opportunity to maximise income.

**Beating butterfat drops on grazing re-growths**

Butterfat content of milk is highly influenced by rumen health and efficiency. Soft, re-growth grass with high protein (25%+) is the biggest culprit during the grazing season, where the fibre shortage leads to a low rumen pH.

Cows don’t chew soft grass as much as they would long fibre forage such the first grazing of grass post-winter, or baled silage and straw; as a result, they deliver less buffering saliva to the rumen as they swallow. This in turn results in a more acidic rumen environment; combined with a lower amount of fermentable fibre actually in the rumen, alongside a higher dietary protein from grass driving up milk volume (thus increasing the number of litres the milk solids are spread over, the ‘dilution effect’), this compounds a decrease in overall butterfat percentage.

The key here is to support the cow by delivering what she is short of, rather than compounding the problem! Remember that second grazing re-growth will average 25%+ protein, so reducing the protein delivery from concentrate feeds will help here, particularly when no buffer is fed.

Typically a 14% protein concentrate, high in digestible fibre such as soyaballs will reduce the impact of high butterfat diets. This increases the amount of fibre fermenting in the rumen, and helps to stabilise rumen pH.

A low protein, high fibre concentrate is exceptionally good value when looking at the returns from higher butterfat percentages. Rumen buffers, such as Health Rumenc Pack from NWF, or sodium bicarb, can also be a cost-effective additional to the ration.

**Keeping an eye on milk protein**

Milk protein, although valuable on a cheese contract, is sometimes side-lined on liquid milk contracts. Critically, however, milk protein is a very good indication of dietary energy, and is one of our biggest tools to establishing why fertility problems may be occurring.

Kingshay research in 2008 established that the ideal calving interval was 365 days, and that each day extended from this would cost £4.50/cow/day. For a 100-cow herd, the impact on the bottom line would therefore be £450 for every day the herd slips over 365-day interval average; slip to 400 days (the UK national average calving interval is over 400 days) and the impact is over £15,000 – equating to 2ppl on a 7,000 litre average.

Milk protein is strongly influenced by stage of lactation, reaching its lowest at peak yield and increasing towards drying off. Low milk proteins are a sign of underfed cows, normally due to:

- Scarce grazing with no supplemental silage/ tight paddock rotations.
- Supplementing/restricting grazing with low ME silage.
- High milk production driven by high grass proteins, without supporting energy being provided.

Underfed cows will milk off their backs immediately, so feeding enough dry matter is what is critical at this stage. Where grazing is tight, one solution is to feed 1kg of NWF Pasture cake for every 1kg of grass dry matter intake short.

**More advice on maintaining milk solids is available from your local NWF Technical Sales Specialist, or call 0800 756 2787.**

New approach to feeding dry cows for this summer

Take a positive new direction taking dairy cows successfully from drying off through into a productive and healthy early lactation.

- **Minimize body condition score loss after calving**
- **Establish early lactation dry matter intake**
- **Reduce clinical and subclinical milk fever**
- **Minimize environmental stress**

Manage your dairy cow successfully from pregnancy to lactation, for a faster return to a positive energy balance with NWF Transition Cow Programme.

[NWF News](https://www.nwfagriculture.co.uk)
Making the most of grass – whether conserved or grazed – is nothing new. But doing so means digging deeper and getting to grips with soil, the engine which drives pasture productivity, says NWF Technical Sales Specialist Barry Connolly.

When it comes to soil, most farmers are well aware of the importance of maintaining levels of key nutrients such as N, P and K. The role of poaching and compaction is also well understood when it comes to grass management and productivity.

But dig a bit deeper, and it becomes clear that soil plays a fundamental role in ensuring livestock units making the most of their grass. For example, it affects grass palatability which in turn has an impact on dry matter intake.

EBLEX figures show that good soil structure can give a yield of grass at 12t/ha, compared to 10.6t/ha for a poor soil structure. That same good soil structure improves nitrogen return from 15:1 in poor soils to 25:1.

Keep your soil
So where do we start? Well, like most things in farming, by getting stuck in!

It’s essential to assess the structure of the soil – dig a hole and see where the soil breaks apart; does it crumble or flake? What does it smell like?

Soil should have that good, earthy smell associated with good growing conditions. In wet, compacted areas, soil takes on a different smell and texture – it should look when making the decision to market them. This is not just about target weight, but ensuring the calves have a healthy coat bloom, for example,” said Sue Bryan.

“The challenges of calf rearing are similar on all farms – scour, pneumonia etc – and so to overcome these and achieve the best price for calves, an informed and consistent approach is needed.”

Soil is a living entity and so care is needed to maintain the correct, aerobic structure. In soils which require it, the oxygen content can be increased by physically aerating the soil with sward lifters and aerators.

Care should also be taken not to ‘drown’ soil, adding large amounts of slurry can make the soil anaerobic, and slurry ‘films’ can form which drive the worms out of the soil where birds then eat them. Little and often is key, rotating with farmyard manure every few years.

“Organic matter is essential to give a soil texture; without organic matter soils slump, they will lack earthworms, fungi and bacteria, which are essential for a healthy living soil. Remember, there is as much liveweight of organisms below ground as there is above,” says John.

A mineral analysis tells us the about the levels of individual minerals in that soil, and their relationship to each other. Looking at calcium, for example; where this is low, soil pH is usually low. Nitrogen efficiency will be compromised, and grass yields will be lower,” says John Long, Technical Sales Consultant for Thomson & Joseph, a specialist trace element company based in Norwich.

“This is turn will affect production of enzymes necessary for energy utilisation within the cow. Poor energy utilisation leads to lack of production, reduced immunity to disease, poor body condition, and poor fertility,” says John.

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"We are looking for optimal levels of minerals in the soil, and their relationship to each other. For example, where magnesium limestone has been continuously used to correct soil pH, and where there may have been a staggers problem in the past, high levels of magnesium relative to calcium, cause soils to be sticky and heavy, reducing oxygen content of the soil, again reducing grass growth.

“Where we get heavy compacted soils from grazing animals and machinery, the soils will contain less air and then less favourable minerals eg iron, aluminium, and molybdenum will appear in the grass. In the diets of cows the negative effects of these can start to impact on trace element utilisation eg copper and selenium.

“Calves need to nest into their beds; they aren’t yet ruminants, by allowing calves to thrive, not just defend themselves. Calf comfort is absolutely essential for growth and health.

A balance needs to be struck between avoiding drafts and not eliminating all air movement. Slow air movement through the shed is needed to remove ammonia and airborne bacteria. “Gently exhale on your hand; that’s the speed of air movement that will stay warm,” advised Sue.

“Gaining the best possible calf price
How to get the best possible price for calves leaving the farm around 42 days old was the aim of a training workshop held by NWF in conjunction with Wright Marshall. NWF Youngstock Specialist Sue Bryan and Jonny Dymond, Principle Calf Auctioneer at Wright Marshall, Beeston, gave presentations at the workshop, which was kindly hosted by WL Jones & Son, of Brook House Farm, Hamner, Cheshire.

“Calves need to nest into their beds; they aren’t yet ruminants, so don’t produce their own body heat like an adult ruminating animal. Lying in damp or wet areas pulls heat from their body, necessitating use of energy, otherwise used for growth, to try to stay warm,” advised Sue.

NWF customers have the opportunity to save 33% on Cow Signals® video learning with further discounts available for students.

Dairy farming is about cows, learning to maximise their health and welfare. Cow Signals® is the concept of reading cow behaviour to identify areas for improvement in their surroundings or routine, is growing in popularity, and enabling dairy farmers to more closely meet their cows’ needs, leading to increased production and lower costs.

For production, health and welfare, a cow needs feed, water, light, air, rest and space. The team of NWF Certified Master Cow Signals® Trainers can also visit your farm and provide advice on these six signs of freedom.

To benefit from this 33% discount call 0800 756 2787 or email nbteam@nwfagriculture.co.uk
The inclusion of yeast in a feeding trial of finishing Mule lambs on one Welsh farm has boosted killing out percentages and carcase grading, as well as reducing feed cost. Gerald and Ruth Morris farm at The Belan, Berriew, Welshpool, with their son, Tom, and daughter, Kathryn; the latter is currently at Aberystwyth University and conducted the feeding trial as part of her degree course.

“Our NWF feed specialist Angus Little had been discussing the use of yeast in the ration for our 60 suckler cows. When my dissertation adviser said we could conduct a home farm trial I decided it would be interesting to look at yeast feeding of lambs as we are predominantly a sheep farm,” said Kathryn.

The unit runs around 1,000 ewes, mostly Mules but with a number of Suffolks and Texels as well, and lambs are finished on NWF FastLamb. For the feeding trial, 96 male and female lambs, of both the Suffolk and Texel strains, were divided into two groups; the control group received Fastlamb and the trial group NWF FastLamb. For the feeding trial, 96 male and female lambs were divided into two groups; the control group received Fastlamb and the trial group received FastLamb with yeast supplement Yea-Sacc.

Results from the trial showed:
- The average final weights for the lambs fed yeast was 43.8kg, compared to 44.66kg for the control group.
- The average dead weight for lambs fed yeast was 20.6kg (killing out percentage 47%) compared to 20.35kg (killing out percentage 46.6%) for the control group.
- The average daily gains of lambs fed yeast was 0.29kg and the average number of days to finish was 32.23, compared to 0.26kg and 35.54 days for the control group.
- The final weights were higher than the control group, however the killing out percentage was better in the trial group.

“This shows really positive results for the lambs fed yeast, as they have done better than the lambs without the yeast. The most interesting finding, however, was the feed consumption,” said Kathryn.

“Basic calculations show that the lambs fed yeast ate on average 0.35kg of feed per day per lamb compared to 0.44kg for the control group. In total, the lambs fed yeast ate 195kg less feed than the control lambs.

“The yeast-supplemented finishing ration was £5/tonne more expensive, but the lower feed consumption meant that, overall, the feed cost to finish was 77p per lamb less than the control group. When combined with the improved carcase returns of 70p per lamb based on £3.40 per kilo, this means an improved return of £1.47 per lamb,” said Kathryn, who added that the additional supplement.

The Belan, Berriew, Welshpool, with their son, Tom, and daughter, Kathryn; the latter is currently at Aberystwyth University and conducted the feeding trial as part of her degree course.

Yea-Sacc

Yea-Sacc is a yeast culture based on a proprietary strain of Saccharomyces Cerevisiae, a yeast strain specifically selected for its influence on animal performance. With a low inclusion rate and a large body of research clarifying its mode of action and performance responses, Yea-Sacc is ideal for beef, dairy, calf and sheep feeds. Manufactured by Alltech, Yea-Sacc can be provided by NWF within feed or as an additional supplement.

NWF acquire Jim Peet Agriculture Ltd

NWF Agriculture Ltd have purchased Jim Peet Agriculture Ltd. Founded in 1977 in Carlisle Cumbria, Jim Peet Agriculture has developed and grown into a major brand in the Feed Industry and now employs 23 people based at Longtown in Carlisle, Aspatria in Cumbria with offices in Langwathby, Penrith.

The company was founded by Jim Peet who worked in the business until recently, being succeeded by his son Simon Peet and his son-in-law Alastair Renvoize. Together they have seen Jim Peet Agriculture grow from humble beginnings to today where it enjoys a sales volume above 50,000 tonnes.

“The acquisition is a fantastic fit for both businesses, NWF Agriculture supplies 100,000 tonnes of product to the North and Scotland and has long sought a supply base for this volume whereas Jim Peet own two production facilities perfectly placed to supply our Northern tonnage and ready to expand and grow,” comments Andrew Downie, Managing Director of NWF Agriculture.

“The Jim Peet personnel are a great addition to our NWF team, they have a salesforce of 5, all working in geographies which complement the existing salesforces of NWF Agriculture and New Breed,” further adds Andrew.

The North is and remains a crucial market for NWF Agriculture with 3,000 dairy farms and a huge opportunity for Beef and Sheep sales growth, a sector where Jim Peet enjoy an excellent reputation.

“In tough market conditions NWF Agriculture has continued to prosper and thrive, growing volume and share through the hard work and dedication of its people and this acquisition serves perfectly to continue this success by providing our Northern Teams with a platform to grow” concludes Andrew.

NWF supply a comprehensive UltraMin range and bespoke minerals to suit individual needs.
Meet the NWF team out and about in 2016 at the following shows:

- **Staffordshire Show with SC Feeds**
  on Wed 1st & Thurs 2nd June 2016
- **Royal Cornwall Show**
  on Thurs 9th, Fri 10th and Sat 11th June 2016
- **Nantwich Show**
  on Wed 27th July 2016
- **North Devon Show**
  on Wed 3rd Aug 2016
- **Dumfries & Lockerbie Agricultural Show**
  on Sat 6th Aug 2016
- **Westmorland Show**
  on Thurs 8th Sept 2016
- **The UK Dairy Day**
  on Wed 14th Sept 2016
- **Cheshire Ploughing Match**
  on Wed 28th Sept 2016
- **Dairy Show**
  on Wed 5th Oct 2016
- **Brailsford Ploughing Match**
  on Wed 5th Oct 2016
- **Borderway Agri Expo**
  on Fri 28th Oct 2016
- **Agri Scot**
  on Wed 16th Nov 2016

For further details visit [www.nwfagriculture.co.uk](http://www.nwfagriculture.co.uk)