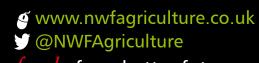
Your NWF Newsletter – Issue 28





INSIDE THIS ISSUE

- Simple changes for the future
- Technical insight on feed efficiency
- Recipes for dry period success
- LifeStart programme



feeds for a better future

NEW BUSINESS ACQUISITION

NWF has acquired the share capital of of years and reflects their confidence in NWF New Breed UK Ltd. Based in Lancaster, to help support their business development and New Breed UK is led by Richard Rolfe growth. and Mark Borthwick who manage a team of 10.

New Breed have been a strategic customer of NWF for ten years. Their decision to sell the business to NWF is the result of a great Breed a successful business to date continues trading relationship developed over a number with support from NWF.

The recent successful management model NWF applied to SC Feeds will apply to New Breed who will operate as a separate business. The structure and format which has made New



Team investment

As part of NWF Agriculture's on-going investment in staff and customer service, three new home-based, AIC accredited NWF sales specialists Shona Brown, Lynsey Forrest and Evonne Gunn are delivering great support for the northern sales team.

The team, who operate predominantly on the phone and by email with farmers, work in partnership with the rest of the northern sales team who are on the road visiting farms.

So successful has this partnership approach with the field based sales team been that NWF now plan to roll out office or home based sales specialists working alongside sales teams on a nationwide basis.

"Shona, Lynsey and Evonne have their own sales ledger, as well as working and supporting the northern sales team as a liaison with farmer customers. They provide support as required through information being posted or provided over the phone to farmers," says Bruce Harding, NWF northern sales director.

"This support can be in the form of quotes, for example, or arranging on-farm appointments for members of the northern sales team. They offer instant information at the end of the phone, which is essential when customers are under time pressure, and can also sell 3rd party products including fertiliser, grass seed, silage additives and milk powder.

"The feedback has been so positive both from our own sales team and from our customers that NWF will now be rolling this partnership programme out nationally," concludes Bruce.



COWSIGNALS®



Simple changes for the future

With the current challenges in the industry, can you make simple changes to improve efficiency on your farm, with your team and herd? Cow Signals is a great concept to help review your herd by looking at production, health and welfare. Using the six signs of freedom simple changes can be made for the future.



Feed

Every cow should be entitled to a stress free space to eat. Did the cow eat enough today? How many cows have danger triangles? Are there any lame cows? Is the feed fence restricting the cows from eating? Is there always feed available? Can every cow eat at the same time? Is the feed palatable?

Water

Water is often over looked on farm but over 85% of milk is water. How often are the water troughs cleaned? Are there enough water troughs for 10% of the herd to drink at the same time? Consider the accessibility and position of the water troughs.

Light is important for regulating feed intake and heat signals. The ideal amount of light for a lactating cow is 16-18 hours light at over 200 lux and 6-8 hours dark at less than 50 lux. How could this be improved in a dark shed? Increase the number of lights, add more sky lights, take down Yorkshire boarding and walls

Air

The air in cubicle houses should be as fresh as the air outside. Fast breathing is one of the first symptoms of heat stress and or lack of ventilation. Wet floors in the cowshed or wet mattresses is another signal for too little ventilation. Fans can be used to improve air flow.

Nothing should prevent cows from having access to feed, water or a bed (no dead end alleys). They should be able to socialise and exhibit signs of heat without problems. Ensure cows walk securely with a non-slippery floor.

Rest

In a good bed, a cow will rest for 14 hours, however this time will be reduced to 9 hours in poorer beds. Every extra hour resting is 1 litre of milk. The beds should fit the largest cow in the herd therefore the target for % muck in beds is 20%. Cows should lie down within 1 minute of entering a cubicle - if she doesn't what is stopping her?

Contact your local NWF Cow Signals Master Trainer for advice and support to applying this practical concept on

NWF welcomes new team members

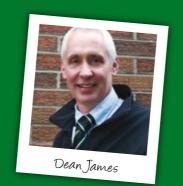
Dean James joins the Southern sales "I also know NWF is recognised for good has managed herds for nine years and growing business around Wixland Mill. had his own dairy farm up to 2015, running 80-100 Friesians averaging 10,000 litres, before moving into Jersey cross breeding.

"I see my role at NWF as a new challenge. I used NWF feed as a customer for a number of NWF also welcome Rebecca Ashton in the perform on farm".

team as Ruminant Sales Specialist. service, knowledge and expertise, which is key Dean, who studied at Bicton College, to meeting customers' needs," says Dean, who **Devon and now lives near Okehampton**, will cover Devon and east Cornwall, focussed on

> Amy Lamb has joined the trading desk to develop sales of merchant products. Amy joins NWF from Norkem with extensive experience in

years, so I have great insight from a customer role of Head of Procurement, Laura Bright as perspective on the products and how they Financial Controller and Erin Way as Technical Co-ordinator.



Congratulations to NWF customers who have been showing livestock this summer. Here are some of the highlights from across the country.

Nantwich Show - Daughters of Mr. and Mrs. Overy, Lower Hall Farm, Spurstow near Tarporley attended Nantwich Show for the first time and won "Best in breed" for their Ryeland lambs and a Championship class.

Great Yorkshire Show - Mr J Goldie, Newbie Mains, Annan, Dumfriesshire, awarded three first's, won first for the Group of Three Simmentalsand won overall Simmental Champion. Success also at Dumfries Show winning Charolais and Simmental Championship and beef interbreed.

Royal Welsh – Dafydd and Helen Cox of Glanmor Jerseys won Supreme Champion Dairy Heifer and Seimon and Eleanor Thomas, Drysgolgoch won Shorthorn Heifer Champion and Reserve Champion Shorthorn.

Merthyr Tydfil Lamb Carcase Competition - Cecil Partridge of West Sidborough, Tiverton won the Best West Country lamb carcasse with a Berichon cross Suffolk lamb in the annual show and sale.



Feed Efficiency

By Richard Hughes

Feed efficiency is a very simple concept. It measures Table 1: Recommended feed efficiency (FE) for cows in how well cows actually use the ration, expressed as various lactation groups and stages of lactation. the litres produced per kg of dry matter intake.

How to calculate it

The beauty is that feed efficiency is an easy figure to calculate, as long as you know how many litres are being produced per day and how many kgDM are being fed. These figures should be readily available. For example, if the average yield per cow (litres/cow/day) is 27 and the total dry matter fed (kg/cow/day) is 20.25 then the feed efficiency (kg milk per kg DM) is 1.33.

It is only recently that feed efficiency, or dry matter intake efficiency, has been used in monitoring the performance of dairy cattle. For dairy, it is a measure to determine the ability of lactating cows to turn feed nutrients into energy-corrected milk; it takes energy to not only produce the volume of milk but also the fat and protein in the milk.

The other reason is related to nutrient management. The more efficient cows are at converting feed into milk, then theoretically the less manure excreted, which has implications for producers with a limited land base.

For herds that have the luxury of grouping cows based on certain criteria, feed efficiency can help determine if the ration is on target. If it is being done on a whole-herd basis, this can be a useful number to check monthly over time to make sure the herd is on track based on days in milk.

If feed efficiency is going to be a truly meaningful number, then measuring dry matter intake is essential. For herds feeding a TMR, this would require knowing the dry matter percentage of the TMR, the batch weight fed to the group, the number of cows in the group and the refusals.

What are the feed efficiency recommendations?

Table 1 lists the recommended feed efficiency for cows in various stages of lactation. Feed efficiency is a tool to assist in determining if there are potential problems and should not be the only information when making decisions to change.

Richard Hughes

Group	Days in Milk	FE*
One group, all cows	150 to 225	1.40 to 1.60
First-lactation group	<90	1.50 to 1.70
First- lactation group	>200	1.20 to 1.40
Second-plus lactation group	<90	1.60 to 1.80
Second-plus lactation group	>200	1.30 to 1.50
Fresh cow group	<21	1.30 to 1.60
Problem herds/groups	150 to 200	<1.3

*These recommendations are based on energy-corrected milk values. Source: M Hutjens, University of Illinois

There are some strategies to consider if feed efficiency is too low (less than 1.3) or too high (more than 1.8). Always recheck your weights and calculations to make sure the number you have is correct. If the feed efficiency is really low, then energy can be a limiting factor. Cows tend to consume dry matter to meet their energy needs.

If forage quality is poor, high amounts of by-product feeds are being fed or the amount of energy fed is not sufficient, cows may consume a lot of dry matter but not produce commensurate to the level of intake. If feed efficiency is too high, then the energy density of the diet may be very high due to the inclusion of added fats.

A too-high feed efficiency figure indicates cows are not receiving enough fibre (NDF) or other nutrients that could impact both production and health over the long term. Feed efficiency can be high in cows producing a lot of milk but not eating well because of metabolic disease.

Feed efficiency should be monitored over time as a means to make sure the ration is on track for production. Make allowances for stage of lactation and age: the demands of pregnancy and growth mean nutrients are diverted and feed efficiency values consequently reduced.

for a successful lactation, as well as delivering easier calvings and stronger calves. Patricia Goldie, NWF Technical Sales Manager Scotland, looks at why dry cow management is critical to profitability.

The cow needs to obtain nutrients through digestion of forage and through concentrates supplied by the dry cow feeding strategy; DM intake during the dry period is critical.

The key is to bring cows in early; the dry period should be seen as the beginning of lactation and used to help cows recover and prepare for oncoming lactation. This means adjusting the diet to ensure body condition score (BCS) is kept near 3.5, without making large adjustments in the dry period.

To support farmers during this critical time, NWF have developed the Transition Cow Programme, a complete nutritional programme which takes dairy cows successfully from drying off through into a productive early lactation.

Designed to:

- Increase dry matter intake post calving to minimise negative energy balance
- Minimise hidden impact of sub-clinical milk fever
- Maximise dairy cow profitability and herd longevity through productivity, fertility and health

One of the key elements of the transition period is the metabolisation of calcium post-calving to avoid milk fever. Cows need to increase the efficiency of calcium metabolism at the time of calving to meet milk production requirements.

Getting dry period management right sets the stage This is usually done by feeding diets low in calcium during the close-up period three weeks prior to calving. However, it can be almost impossible to achieve the target of less than 35g calcium per cow per day in practice, particularly on traditional UK dry cow rations which feature grass silage and straw.

Dry Cow Management

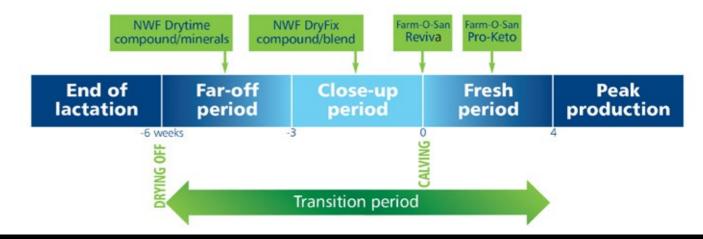
This is where NWF DryFix plays a central role in the Transition Cow Programme. This rumen-protected supplement, available as a compound or blend, works by locking up dietary calcium during the close-up period, tricking the cow's metabolism into maximum calcium efficiency at calving.

DryFix contains CalFix®, a patented feed technology from Trouw Nutrition. CalFix® lifts blood calcium levels above that associated with the incidence of sub-clinical milk fever, as well as increasing early dry matter intake (DMI) in fresh-calved cows, thereby minimising negative energy balance.

Fed for 21 days at 3.5kg per head, the cost per cow is £22.16 for compound and £19.58 for blend. With production diseases such as milk fever, mastitis and retained placenta estimated to cost over £200 per cow in the herd, the investment cost of NWF DryFix is covered by as little as a 10% drop in incidence of these diseases and gives peace of mind for the forthcoming lactation.

The NWF Transition Cow Programme features NWF DryFix Compound, NWF DryFix Blend, NWF Drytime Compound, NWF Drytime Minerals, Farm-O-San Reviva and Farm-O-San Pro-Keto.

Contact your local NWF Sales Specialist for more information or call 0800 756 2787.





Recipes for dry period success



By Michael Head, director at the Shepton Veterinary Group in Somerset

We are all coming to realise the importance of the dry period in being the firm foundation for health, production and fertility in early lactation. Many of the causes of metritis (dirty cows) and mastitis originate in the dry period.

dry period success:

Ingredient 1: Adequate access to food and water. Allow 3ft of feed space per cow.

Ingredient 2: Avoid any weight loss in the dry period. Weight loss is a reflection of inadequate energy supply. The follicle (egg) for the next pregnancy is produced in the dry period. Compromising energy will have a negative effect on the egg, making it less likely to result in conception. Strategic Body Condition scoring should be carried out on representative sample of the important groups (Dry; at calving; 60 days post calving; and 100 days pre-drying off)

There are four simple 'ingredients' in the recipe for Ingredient 3: Minerals should be supplied during the whole dry period, in preparation for a constant supply to the future pregnancy. Blood sampling for minerals (copper, selenium and iodine) can be done at any time but if done when supplementary minerals are at their lowest it gives the best indication of the mineral status of the farm. Use of dry cow mineral boluses are becoming an increasingly popular option.

> **Ingredient 4:** Simplicity; more producers are changing to one dry cow ration but remember an animal requires at least three weeks if it is going into a transition group. Try to minimise group changes as it is known that intakes can be affected for an average of three days post movement. Do not forget water.

Michael Head is a director at the Shepton Veterinary Group in Somerset. As well as supporting local farms through routine preventative medicine visits, Michael is responsible for farmer training. He holds the Certificate in Cattle Health and production (CertCHP) and Diploma in Bovine Reproduction, as well as being recently recognised by the Royal College of Veterinary Surgeons as an Advanced Practitioner in Cattle Health and Production. Upcoming events: 7th to 10th September DIY A1 Course, 23rd September Dutch Foot Trimming, 14th October Polish Workers Training Course.



NEW Ultra Life Milk Powder

A new high quality milk replacer providing optimal protein and fat intakes to boost early growth.

- This 24% protein and 20% oil milk **powder** is suitable for accelerated heifer rearing programmes on either bucket systems or computer controlled machines.
- 70% total milk solids which are carefully selected with maximum nutritional value.
- **Balanced blends of superior oils** which are homogenised and emulsified for maximum digestibility
- Protimax egg powder, rich in specific proteins to help calves meet the challenges of early life
- Nucklospray, a dried complex of pre digested proteins which are more readily digested





When you look at UK milk delivery data available from AHDB Dairy, milk yields in early winter fall off, with cows not reaching their expected yield until early in the New Year. This trend occurs year-onyear; a clear trend of milk loss is shown through the

There are a number of reasons for this drop but the important point is that it's not until late October/early November before yields start to increase again. Milk sales take until early January to reach the annual average.

The annual Trouw Nutrition GB Milk Yield from grazing programme has received over 450 samples so far this year which clearly indicate that dry matter intake from grazing declines from July onwards. This is largely a result of the shortening of daylight hours.

The potential milk yield from grazing also declines in September and can be typically 10 litres per cow per day below the summer

In practice, feeding is seldom adjusted to fully account for the energy shortfall from grazing as the milk in the bulk tank remains steady. In this scenario milk production is being supported by energy released from body condition loss, which becomes greater if more over-reliance is placed on the later season grazing.

This starts to explain why cows brought in onto winter feeding often experience a lag in milk yield before they begin to perform to their expected level. Cows will naturally replace their body condition score once peak lactation has been achieved.

The level to which energy is utilised for body condition gain will depend on the level to which condition was lost in earlier lactation. Table 1 shows the impact of the use of dietary energy to regain each quarter of body condition score within one to four months on the amount of milk yield that is sacrificed to gain that condition loss.

BCS Re-gain	Month 1	Month 2	Month 3	Month 4
0.25	2.9	1.4	1.0	0.7
0.5	5.7	2.9	1.9	1.4
0.75	8.6	4.3	2.9	2.2
1	11.5	5.7	3.8	2.9

Table 1: Effect of body condition gain on milk yield loss over a varying period of time

As an example, take a situation where cows enter the winter feeding period (brought in from grazing) in October, and by January the herd has utilised feed energy to regained 0.25 BCS. Over that three-month period, cows have lost 1 litre per head per day, or 9,200 litres for a 100-cow herd, equivalent to £2,852 of milk loss based on a milk price of 31ppl.

That is an example on an average herd basis; consider the highyielding cow calving down in August which, due to lower dry matter intake potential during that grazing period, has lost 0.75 BCS. She will utilise feed energy to the value of 2.9 lost litres per head per day over a three-month period while body condition score is built back up.

It is far better and simpler to prevent this happening. For a start, do not overestimate intakes at grazing from this point forward and increase buffer and supplementation rate to balance a reducing grass intake.

To balance declining grass quality and using this year's first cut grass silage average, replacing 1kg DM of grazing with 1kg DM of first cut grass silage will still leave cows 0.7MJ short, which can be made up by 60 grams of wheat.

Over the past three years, the average reduction of grazing DMI has been 0.3kg/head/week from August through until the end of the grazing season. This must be balanced with effective buffer feeding to ensure cows enter the winter period in optimum body condition to avoid costly milk yield loss in early winter.

For advice on managing performance during late season grazing and making the transition to winter housing, contact your local NWF sales specialist or call 0800 756 2787

LifeStart Programme for sustainable, improved productivity

The new LifeStart programme by Nutreco brings together world-class expertise on animal health and nutrition with practical farm management experience, to find sustainable ways of improving productivity.

"Global farming faces huge challenges: there will be nine billion people to feed by 2050, with an ever-greater pressure to become more sustainable in the way we feed the population. Alongside this is a drive to improve animal welfare and health, using natural and sustainable methods," says NWF's Adam Chalklin.

Currently focusing on dairy cattle, LifeStart has helped to define a proven methodology for rearing healthier and more productive cows in this way.



"Successful calf rearing is based on a virtuous circle of good health, quality nutrition and strong growth. LifeStart works by proactively and positively affecting all three components through a natural process known as metabolic programming," says NWF's Adam Chalklin.

Metabolic programming, the key scientific principle behind the LifeStart program, is an entirely natural phenomenon which exists in all kinds of mammals, including human beings. The effect is best described as an improvement of the whole life health and performance of individuals beyond what would previously have been considered their full potential.

The cause of this effect is optimised growth in the neo-natal period. Growth in animals is understood to be dependent on four key factors: nutrition, endocrine function, management and genetics, with genetics long thought to be the most powerful of these in determining maximum growth potential.

The emerging science of epigenetics, which examines changes in the expression of genes not directly caused by changes in the DNA sequence itself, suggests gene expression appears to be affected by the quality of nutrition and the absence of disease in this crucial early period.

Research has shown that by providing quality nutrition during the first growing stage of a calf's life, lifetime performance can be enhanced, as their full genetic potential is optimised. Accelerated growth in the first eight weeks of life is a key factor in the development of mammary tissue.

A healthy environment

It's not just nutrition which is key, of course: good health is also essential. The LifeStart programme includes five 'critical control points' leading to a healthy and productive environment for raising calves:

- 1. Comfort: dry, bright, soft, well-ventilated
- **2. Consistency:** feeding according to a schedule
- **3. Colostrum:** four litres within the first six hours
- 4. Calories: 150g/litre of quality milk replacer5. Cleanliness: hygienic birth and housing

The LifeStart programme aims to produce calves with strong, healthy growth and optimal rumen development with less diarrhoea and respiratory issues. These calves then have the best chance of becoming strong, durable cows with higher milk yields and a higher lifetime production.

Table 1. LifeStart calf rearing objectives

LIFESTART – CALF REARING OBJECTIVES (HOLSTEIN FRIESIAN EXAMPLE) Low mortality rate <10% Low diarrhoea incidence Low incidence of lung problems <10% Wean at 9 weeks of age 85-95kg Weight at 3 month of age 115-120kg Insemination age From 14 months Insemination weight 400-500kg Calving age From 23 months 600-650kg First calving weight

Milk and enhanced early growth

Recent studies have demonstrated accelerated early growth in calves through intensive feeding with high quality milk-based feeds. Typically this feeding is carefully controlled for the first eight weeks of life, during which time solid feed is introduced in lower amounts than usual to allow optimal milk protein and fat intake.

The LifeStart programme targets high average daily gain (ADG) and higher weight at weaning achieved through an increased regimen of quality calf milk replacer (CMR). Whereas a conventional CMR regime based on a powder of 22% crude protein and 18% fat might be fed at 100g per litre in five litres per day (500gDM/day) which can achieve a target ADG of 550g/day; the accelerated high ADG boosts feed rate to 150g per litre in six litres (900gDM/day) for an average growth of 800g/day.

"One of the benefits of increased growth rates is a lower age at first calving, which in turn increases the potential productivity of the heifer whilst lowering the overall cost of production. Studies show that for every gram of extra pre-weaning daily liveweight gain, up to an average extra 900 litres of milk was produced during the first lactation," concludes Adam, who adds that the programme aims to deliver an average first lactation increase of four litres per gram of extra ADG.

Further research

While studies have demonstrated significant benefits from a focus on optimal calf weight gain, the LifeStart programme is continuing research in the area. The research programme, undertaken by Nutreco with support from Cornell University, has a trial underway monitoring 70 Holstein Friesian calves from birth, with half fed 30kg of CMR in the first eight weeks and the other half fed 60kg. To access results from the trial, go to **www.lifestart.nutreco.com**.

Testimonial

"We knew we were already getting good calf rearing results; but feeding NWF UltraLife Milk Powder has taken our calf rearing to that next step. It mixes well, calves are satisfied; they transition to 3 litres per feed quicker without scour and are fighting fit to grow on"

Shelia Yates, East Logan, Castle Douglas. Gold Cup 2015 Finalists

QUESTIONS

FROM THE CALF SHED

With Sue Bryan, NWF Ruminant Sales Specialis



COMFORT

Calves need to nest into their beds. A balance needs to be struck between keeping calves as warm and snug as possible (drafts also remove body heat) and not eliminating all air movement. Calves lie down for around 19 hours per day, so their noses inhale a lot of potential ammonia from their bedding, so ensure it is as clean and deep as possible, and allow some slow air movement through the shed.

Q. What are the essentials for profitable calf rearing?

Successful calf rearing is a piece of cake if you get these basics right. If you get these basics wrong, however, it doesn't matter what products, powders or compounds you feed, you will never achieve optimum results.



CONSISTENCY

Calves, like most livestock, thrive on routine and consistency. Aim to make every feed the calf receives the best possible and on time; a consistent, strong nutrient supply will give the calf all the fight it needs against bacteria and viruses trying to invade.



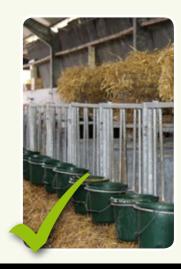
COLOSTRUM

It's nothing new to say colostrum should be fed as soon as possible after birth – ideally within 6 hours and don't forget that colostrum is a 'nutrient soup'. Cover the colostrum bucket and, if freezing, make the pack as flat and thin as possible to aid a quick thawing process. New-born calves require 200g of IgG; good colostrum carries 50g/litre, meaning a four-litre litre feed rate within first six hours. Remember colostrum quality varies, if in doubt, use a colostrometer at room temperature to judge quality.



CALORIES

The latest research on feeding calves shows maximising nutrition during the milk feeding stages activates a process known as epigenetics (see the LifeStart article). This allows the genetic potential of the calf to be expressed later in life, feed 150g/litre of Ultra Life Milk Replacer. Calves should be feed around 900g/head/day of a good quality, balanced milk powder. Step the feed rate up, and step wean for the best results.



CLEANLINESS

Remember that calf feeding equipment, calving pens, calf pens etc must be as clean as you possibly can make them, otherwise calves are exposed to all additional levels bacteria naturally found in the environment affecting their rearing performance.

For help with your calf rearing program contact your local NWF sales specialist or call 0800 756 2787



Beef and sheep need at least 15 different minerals for good health and productivity. The major elements such as calcium (Ca) and phosphorous (P) are required in relatively large amounts however trace new leaves. elements are required in much smaller quantities.

The most economically important trace elements are copper (Cu), selenium (Se), cobalt (Co) and iodine (I); zinc (Zn) and manganese (Mn) deficiencies are much less important. It is The NWF Standard Mineral Range important to note that other minerals can interfere with the utilisation of essential trace elements. For example, the presence of molybdenum (Mo) and sulphur (S) can precipitate a copper deficiency.

Inaccurate mineral supplementation of diets can result in reduced performance, increased disease and health problems and potentially death. It pays to get mineral nutrition right.

Many of the major health problems are the result of imbalances in mineral nutrition. Problems can result from either too high or too low a level of a particular mineral; many of the forages in diets are low in minerals.

If you have any mature, late cut silage it is likely to have low energy and protein content and its voluntary intake will be limited. It should be recognised that the mineral content of mature silage is reduced as well.

For example, phosphorus concentration declines appreciably with increasing maturity and other elements (e.g. magnesium,

cobalt, copper, zinc etc) also decline, albeit not as much as phosphorus. These changes are a result of the increase in proportion of stem to leaf and the higher proportion of old to

The NWF mineral range is formulated to complement a wide range of forages and to help overcome specific problems.

- Elite Dairy
- Super Dairy
- Grass/Maize Silage Balancer
- Grass/Maize Silage Balancer plus Hoof Pak
- Grass/Maize Silage Balancer plus SCC Pak
- Summer Grazing
- Dry Cow
- Cattle High Mag
- Cattle General Purpose
- Intensive Beef

Minerals are available as free access, inlcluded in a blend or supplied as buckets or blocks. NWF also supply mineral straights including limestone flour, calcined magnesite and magnesium chloride flakes.

In addition to the standard mineral range, NWF sales specialists can formulate the most cost effective mineral supplementation using results from a forage analysis using our industry leading RPM rationing programme.

Pasture cover

Good quality grass is the cheapest feed for ruminant animals and is the base on which profitable farming is built, therefore it's important to make the numbers add up. The cost of producing a good crop of silage is £30 per tonne; hay is £75 per tonne; while even grazed grass costs £15 per tonne.

Most of these costs are unavoidable: rent or equivalent, fertiliser, cost of machinery, fuel and operational costs.

If it costs £30 per tonne to grow a good crop of silage, imagine how much more costly it is to grow a poor crop? The fixed costs per tonne remain the same but, with potentially less productive grasses, the overall yield is lower, pushing silage production costs up unnecessarily.

The cost of old grass - Hybrid/perennial ley/ha

Age of Field (Since reseeded)	Lost MJ	Yield (t/DM/ha)	Lost Yield (based on £100 t/DM/ha)
1	-	13	-
2	6	12.5	£50
3	18	11.5	£150
4	30	10.5	£250
5	42	9	£400
6	54	8	£500
7	72	7	£600

Source: Barenbrua

Keep your sward up to scratch. As the numbers show, it's essential to maintain grass in the best possible condition to consistently produce the best yields.

If you avoid reseeding fields, the negative effect on sward performance is quite dramatic. If 55Mj is equivalent to 1kg of

weight gain, by year seven every hectare of old grass is losing you over 1.3kg weight gain or £600 equivalent of winter feed.

Replacing an old, unproductive permanent pasture must be seen as a long-term investment to increase grassland productivity and output.



It results in a number of benefits, including high yields of grass dry matter throughout the year which in turn supports higher stocking rates and higher animal performance and liveweight

New swards are also 25% more responsive to nitrogen compared to old permanent pasture. This reduces chemical nitrogen usage and cuts fertiliser costs.

PASTURE RENEWAL CHECKLIST

- Identify poor fields
- Rectify the reasons behind poor performance
- Identify soil fertility and soil structure test
- Check for pests
- Choose appropriate renewal method
- Spray out field prior to cultivation or direct drilling as needed
- If cultivating, prepare a good seed bed (firm, fine and level)
- Choose correct cultivar and seed mixture to match the situation and your requirements
- Choose correct sowing rate and
- Weed control after sowing as required
- For pasture, graze early to promote tillering, use 'pluck test' to determine when pasture is ready to graze

Call 0800 756 2787 for a FREE NWF Grass Seed Leaflet





High quality by pass protein sources

ULTRA SOY

Soya protein 46% available as MPB*

ULTRA PRO R

Rape protein 75% available as MPB*

*as a percentage of the overall crude protein level

Diversification with a difference

A holiday can be rarity in the farming diary, but for one dairy farmer the family holidays to Exmoor brought on a life changing decision.

In 2013 Olly and Zoe Rose sold their Stourvale Holstein herd of 300 cows along with the family farm for a new life on Exmoor.

Their new home is Liscombe, a beautiful hamlet in the heart of Exmoor near a popular tourist attraction Tarr Steps. Olly and Zoe Rose purchased a holiday cottage business and farm with grand plans.

Over the following months they designed and erected a new shed with a difference. Incorporated at the end of the shed is an ice cream parlour and café with a viewing gallery of the milking. The herd of 70 Brown Swiss are milked an average of 3.3 times a day through a Lely Astronaut Robot positioned directly in front of the glass wall for visitors to the ice cream parlour and café to see and learn where milk comes from.

There are 24 flavours of Liscombe Farm ice cream hand made by Zoe. The ice cream parlour and café are a popular tourist destination with visitors amazed to see the engine of the business in front of their eyes as they select their flavours.

The dairy herd are fed NWF compound through the robot and an NWF blend to complement forage. The objective is to push herd numbers up as the ice cream business grows and to support Olly's plans to set up a local milk round. All this hard work is building a future for their three children Archie, Emily and Rupert.

www.liscombefarm.co.uk













Useful Contacts

General Enquiries 0800 756 2787 **Customer Services** 0800 262397 **Feed Orders** 0800 262397 01829 262251 **Blends Straights & Liquids** 01829 262394 **Minerals** 01829 262382 **Milk Powders** 01829 262346 **Seed & Fertiliser** 01829 262294 **Technical Team** 01829 797147 01829 262338 **Transport Mill Production** 01829 262254 **Customer Accounts** 01829 262284 Seed, Fertiliser & Additives 01829 262294 **Trading Desk Sales Support 01829 262342**

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