



AGRICULTURE

News

Your NWF Newsletter
Autumn 2020

Issue No.36



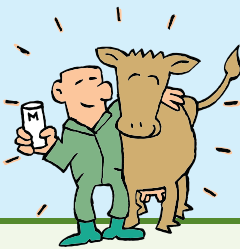
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Is your housing Winter ready?

Winter housing can be a costly time on farm but preparing and implementing a plan allows your cattle to perform to their maximum. Cow Signals is the concept of reading cow behaviour to identify areas for improvement in their surroundings or routine. Whilst originally developed for dairy units, many of the principles can be applied to beef units too.

This concept enables farmers to meet their cows' needs, leading more closely to increased production and lower costs. Cow Signals revolves around six freedoms: feed, water, light, air, rest and space.



FEED

Ensure cows have access to fresh, accurately mixed feed. Healthy cows eat 10-12 times a day for 30-45 minutes, totalling an eating time of 6 hours. NWF can provide guidelines on feed barrier measurements to ensure cows can reach the feed easily. More space will lead to a higher feed intake; large Holsteins should have 75cm of feed space per cow. When feed space is short, increasing push ups to 10 times per day will benefit the heifers, quiet or lame cows in the herd. With the most important push up being 45 minutes to 1 hour after feed-out once the dominant cows have had their fill.

Emma Vance, who has a robot herd in Dumfries and Galloway, increased the number of push ups they provide to one per hour after a cow signals workshop. Emma said, "The change has been brilliant, cows dry matter intake from forage increased and milk yield followed with the biggest difference seen in the heifers".

LIGHT

Sufficient light for lactating animals can increase feed intake and encourage heat signals. 16 – 18 hours light (>200 lux) with 6 – 8 hours dark (<50 lux) is recommended for lactating animals with the opposite for dry cows.

AIR

The air should be as fresh as outside the shed. Wet floors, mattresses, cobwebs and condensation are all signs of a lack of ventilation.

WATER

Over 85% of milk is water, so accessibility is paramount for milk yield. Water should be fresh, and troughs cleaned out regularly. The number of cows per trough, trough height, water depth and speed of refill are just as important.

15

The number of litres a cow can drink in a minute

60

A cow will drink most of her daily intake within 60 minutes of milking

30

The number of minutes a cow will drink in a day

120

The number of litres a 30L cow will drink in a day

REST

The optimum lying time for health and production in a 24 hour period is 14 hours. To achieve this, cubicles need to be of the correct design so that cows can enter, stand and lie squarely in them, and have adequate lunge room when standing. The difference between 9 hours lying time and 14 hours is an extra litre of milk production for each extra hour (Grant, 2003), with 30% more blood circulating through the udder.



Uncomfortable beds make cows reluctant to lie down, as well as potentially causing injuries such as skin abrasions, joint inflammation and infection. Longer standing times lead to increased lameness and lower production, plus additional treatment costs. The drop knee test can be used to test cubical matting or mattress comfort, animals can also be timed from entry to the cubical to lying with a target of under 60 seconds. If space allows, consider a straw yard for sick and or lame animals which can also provide benefits.



Deep bedded sand, whilst bringing infrastructure challenges, would be deemed as the gold standard for optimum lying times. Deep bedded means sand should be front loaded over the brisket bar to encourage lying time and fluid drainage. Sourcing the correct grade of sand is paramount to avoid contamination, which can risk a rise in somatic cell counts.

SPACE

Does your shed have adequate room for passing cows around water troughs, cow brushes, feed barriers and outer parlours?

To minimise stressful events, nothing should prevent cows from having access to food, water or a bed (no dead-end alleys). Cows should be able to socialise and exhibit signs of heat without problems and walk securely on a non-slippery floor.

THREE IMPORTANT MESSAGES

1. Every cow has a comfortable bed
2. Every cow has a space to feed and drink
3. Every shed has free cow flow



High yielding cows can be compared to someone completing an Iron man, with a metabolic output of three times their maintenance. Dairy cows must do this on a daily basis, so we need to provide them with an environment in which they can reach their potential.

For further information on Cow Signals and to arrange an audit, workshop or presentation please call 0800 756 2787 or email nbteam@nwfagriculture.co.uk

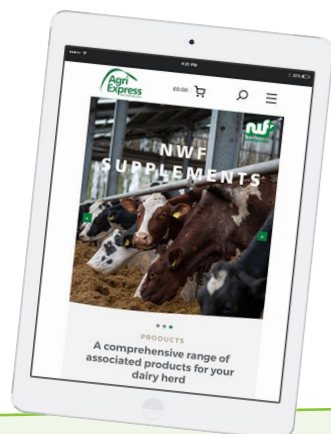


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We have launched our new online ordering platform, Agri Express. Stocking a wide range of products for UK dairy, beef and sheep farmers. You can now shop online with NWF Agriculture and purchase a wide range of products from your computer, tablet or phone in a matter of minutes.

Register your NWF account online to receive a **£50 off* voucher** to redeem using code **AGRI50** for your first order placed online: **visit www.agriexpress.co.uk/register**

**£100 minimum spend. Terms and conditions apply.*

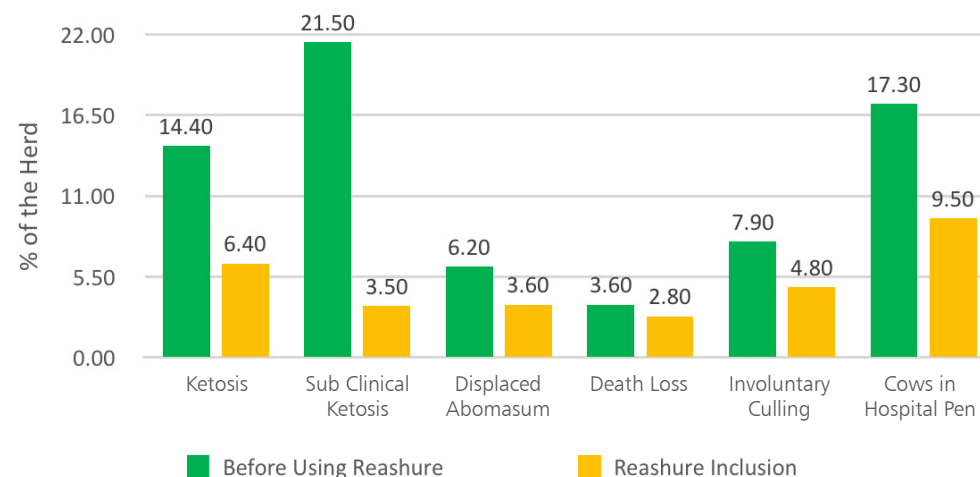


Dry Cow Formula... That Works



Two years ago, NWF Agriculture launched its innovative dry cow system based on a few simple and proven policies. Here are key points to why over 25,000 dry cows benefit every year from this system.

- **Quality:** seems obvious but often overlooked. Using quality ingredients with balanced energy and protein release, helps prepare the cow for lactation.
- **Magnesium:** helps calcium to be used by the cow, therefore key to help reduce milk fever. However, it is blocked by potassium which is high in green forage (grass and grass silage). A 2kg feed rate of Drytime supplies 42 grams of magnesium, therefore meeting the cow's requirement.
- **High protein and starch:** the cow and the rumen needs to be prepared for the lactation diet, adding quality protein including Ultra Soy and Ultra Pro-R, and starch sources within NWF Drytime help to build microbial activity in the rumen and boost by-pass nutrients.
- **Protected Choline Chloride:** a true 'transition' diet must focus on liver health. Reashure, supplied within Drytime, is a proven source of protected choline chloride. It's purpose is simple, helping the process of weight loss in early lactation to be used for milk production whilst keeping a healthy liver and reducing ketosis. The results illustrated in the graph below show significant improvements seen from inclusion of Reashure.
- **DCAB:** The NWF Drytime formulation contains high levels of anionic salts to reduce dietary Cation Anion Balance balance. Simply put, this encourages the cow's metabolism to release calcium held in her reserves and makes it available for use, therefore reducing milk fevers.



A transition diet does not stop at calving, at this stage we must take every opportunity to encourage cows to eat and drink to ensure a healthy transition to lactation. The Techmix Fresh Cow YMCP® is a fundamental part to the NWF Transition Cow policy, offered as a post calving drink, drench or a paste. It offers essential nutrients to help cows' transition successfully.

Winter Feeding Options

By Adam Clay, Head of Technical

Despite experiencing both droughts and floods in the same summer, feedback from customers and trends have suggested that most dairy units have achieved 3 cuts, with 4th on the way and in some cases a 5th.

Whilst a low yielding 1st cut usually points towards a leafy wet silage, this year's averages as shown in NWF's own laboratory data, table below, are uncharacteristically dry which will be very positive when it comes to utilising that quality.

NWF Grass Silage Sample Averages from Laboratory				
		1st Cut	2nd Cut	3rd Cut
Dry matter	%	35.9	34.1	35.0
Protein	%	14.4	14.9	15.5
ME	MJ/KG/DM	11.1	10.8	10.3
D-Value		69.3	67.8	64.7
Sugar	%	3.0	2.0	1.8
NDF	%	45.2	47.1	47.4
Lignin	g/kg	42.6	44.5	50.4
Lactic Acid	g/kg	65.8	68.6	65.4
pH		4.3	4.2	4.2
RFC	g/kg	191.9	179.5	171.0
TFC	g/kg	427.0	415.3	394.1
RFP	g/kg	89.3	91.3	92.9
TFP	g/kg	108.7	107.9	108.5
Dynamic Energy	g/kg	5.9	5.9	5.7
Glucogenic Energy	g/kg	121.6	120.8	117.2
Acid Load		47.6	46.0	44.8
Fibre Index		182.5	188.9	190.1

Early averages are looking positive and surprisingly consistent between cuts, apart from the usual fibre and energy variations. The importance of dry matter (DM) is often understated; it dictates clamp stability, palatability and intake characteristics. Whilst we love to see a high D-value and ME, cows must be able to keep the silage in the rumen long enough for it to be digested.

An 11.5ME+ silage looks positive on the analyses, but all too often is unachievable when the DM is less than 30%. This year's 1st cut silage, with an average DM of 35.9%, suggests good rumen health characteristics, reduced risk of clostridia during fermentation and high milk yield potential.

On a typical DM intake, this year's average 1st cuts at 11.1ME could sustain over 11 litres, 2 litres/h/d more than a typical 3rd cut which at 10.3ME is what we would expect to see in other seasons.

The decreasing ME through the cuts follows the trend of increasing fibre (NDF), perhaps slightly more so than many were expecting; likely due to the high levels of lignin-indigestible by ruminants. For dryer silages, particularly those of high fibre and lower ME, chop silage to approximately 20mm to stimulate intake.

Rumen health characteristics are generally positive through the cuts. Sugar levels (1.8-3%) are not overly high and with relatively average lactic acid and RFC (rapidly fermentable carbohydrates), average acid loads of 47.6, 46 and 44.8, suggest that diets can be pushed if needed.

Higher DM silages often lead to higher pH, which in many cases is acceptable; however, keep a close eye on clamp stability and heating at the face or through feed-out. The TMR can be treated to tackle heating but don't delay as heat is using valuable energy and creates spoilage. To promote intakes, overall TMR DM should be 45 – 50%, higher levels will only reduce intakes. Adding water is an option to help not only stimulate intakes but can reduce sorting in very dry diets.

Published data (Felton and DeVries, 2010) and feedback from our sales specialist are mixed on the effects of dry silages; some have reported higher intakes and milk yields, whilst others have found no effects and heating in the ration. Incorporating alternative feeds such as molasses, could be an appropriate step; adding moisture, increasing palatability and delivering energy.

A key and well known driver for farm profitability is milk yield from forage, and the latest Kingshay costings report shows an improvement on a rolling 12 month basis, an increase of 246 litres/cow/year to average 2,799 litres/cow/year.

At NWF we are passionate about improving farm performance and it is being reflected; herds supported by NWF Specialists average 105 litres/cow/year more from forage than the average (2,904 litres/cow/year from forage).

NWF Sales Specialists can help you maximise performance this winter.



Forage Brassica Crops

By Roger Bacon, Barenbrug UK Regional Sales Manager



UK Grass Seed Experts

BARENBRUG

Forage brassica crops are grown throughout the UK both as a supplement and as an alternative to pastures in livestock production systems. Brassicas are important, they can produce high yields of high-quality forage that can be fed on farm from early summer through to late winter. As well as being a feed substitute to pasture, brassicas act as a break crop during pasture renewal. They can help with weed, pest and disease reduction and create better soil conditions and cleaner seedbeds for establishing new pastures.

Benefits of brassica & forage crops

- Strategic crop for reseeding, making it easier i.e. fewer weed pressures.
- Control spring surplus and shift feed from Spring into Summer or Autumn to Winter.
- Breaking up insect pest cycle, such as leatherjackets.
- Consistency high quality ME 10.5- 13, proteins of 16-24%.
- High animal performance potential.

Selection of suitable fields and sites for out-wintering is critical if soil erosion & poaching are to be avoided. Fields with sandy soils, good soil drainage characteristics and gentle slopes are preferable to heavy clay soils which are poorly drained, or steep slopes where considerable run-off can occur. Forage brassicas lack structural fibre therefore a fibre, from silage, hay or straw should be available adlib in grazing areas to maintain rumen function and prevent acidosis. Ensure that all feed bales (silage, straw) are placed in the field prior to grazing and before wet autumn/winter conditions occur.

It is important to include a lye back area (this could be an adjoining grass field), to keep the animals clean, give them somewhere to lie down and allow their feet to dry. A stocking density

of 18 cows or 25 youngstock per hectare for 100 days should be achieved with kale crops producing 11 tonnes DM/ha.

Stubble turnips with a yield of 5.6 tonnes DM/ha will support approximately 5 cows or 7 youngstock/ha for 100 days. Offering the same quantity of fresh brassicas daily to the cattle ensures the nutritional quality of the diet remains stable.

Forage brassica crops have the potential to out-winter dry cows and growing cattle. Strip grazing with electric fence, where cattle are allowed a relatively small fresh crop area each day is one of the most efficient ways to utilise a grazed brassica crop.

Key objectives and practical tips for successfully utilising brassica crops in out-wintering systems for dry dairy cows are:

- Find out the DM of the crop and estimate utilisation.
- Calculate daily DM requirements and allocate the crop accordingly. It is important to achieve good estimates of the yield, DM content and proportion of crop utilised for accurate animal rationing.
- Maximise dry matter intakes for top animal performance. Remember, cows may take up to 3 weeks to adapt to the crop.
- Allow "full" cows onto the crop initially for short periods to begin with.
- Use long narrow daily feed face allocations so all cows have access.
- Never feed 100% brassicas, even for short periods.
- Include a pasture run-off area and supplement with minerals.
- Identify any cows that will not eat brassicas and manage separately.
- Don't feed "close-to" calving cows brassica crops – manage these separately.

Do you know the importance of minerals?

Understanding the complexity and sensitivity of minerals is important, including the great gains minerals can have on livestock health and performance. Getting the balance correct, considering all sources and performance requirements of your herd or flock, is key to achieving this optimal performance.

The NWF UltraMin range is specifically formulated and manufactured in the UK to support the healthy production of livestock. All NWF sales specialists are FAR registered and can work with you to review forage mineral analysis and current feed rations to help optimise your livestock's diet.

The source of minerals is key to absorption and supply to the bloodstream, and since the 1900's there has been constant development; from oxides to sulphates, to organics and hydroxys. The UltraMin range, with the use of Intellibonds and Optimin Organics help reduce the insolubility in the minerals.



Intellibond Hydroxy trace minerals are designed to deliver optimal trace element supply to the animal through high feed stability, low rumen solubility and high bioavailability. Feeding Intellibond Hydroxy trace minerals will support optimal rumen function when replacing sulphates, with improved bioavailability of mineral sources through optimal delivery.

Optimin organic minerals are protected and easily absorbed, optimising delivery to the animal. Optimin supports the animal's mineral status contributing to health and improved performance. A superior trace mineral source leads to less variability in the herd and overall better profits.

NWF UltraMin Powdered Mineral Range supplied in 25kg bags:

DAIRY

- UltraMin Elite Dairy
- UltraMin Super Dairy
- UltraMin NWF Dairy
- UltraMin Dry Cow

BEEF

- UltraMin Intensive Beef
- Suckler Cow
 - UltraMin Elite Beef Breeder
 - UltraMin Cattle GP Free Access
- Risk of Staggers
 - UltraMin Tri Mag
 - UltraMin Cattle High Mag

YOUNGSTOCK

- UltraMin Elite Heifer Rearer
- UltraMin NWF Youngstock

SHEEP

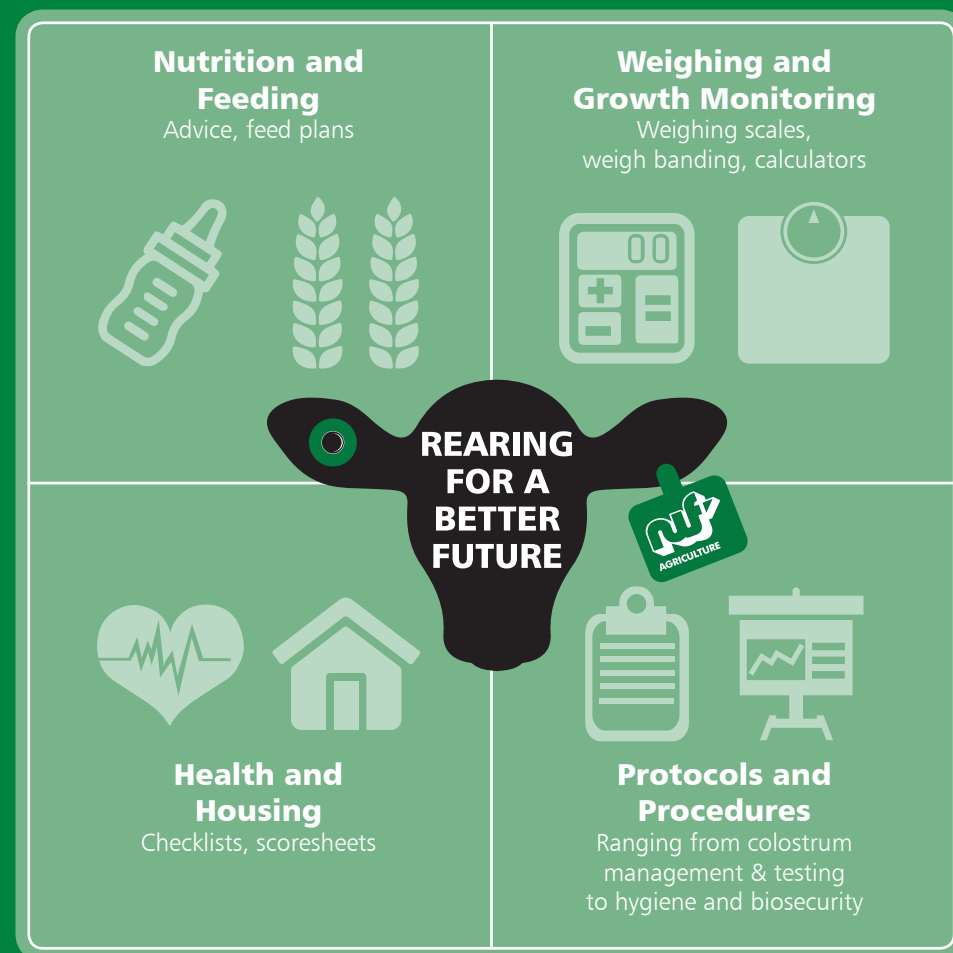
- UltraMin Intensive Lamb
- UltraMin Sheep GP

Rearing for a Better Future with NWF Youngstock Team

Earlier this year, NWF launched a Youngstock Team covering the central regions and areas of North Wales. The team provide comprehensive advice on all aspects of calf management and feeding, along with our calf weighing service, the NWF youngstock team are seeing positive results on farms across the regions.

From strong farming and calf rearing backgrounds, the team have received broad in-depth training on all aspects on rearing calves. During lockdown the team have had the opportunity to review the latest research and development surrounding calf health & growth, calf milk replacers, housing and environment, and even automatic feeding systems.

The NWF Youngstock team are available to visit your farm, in the meantime, please get in touch on **0800 756 2787** or email **technical@nwfagriculture.co.uk** for practical advice and best practices on improving your youngstock enterprise.



NWF Ultra Milk Calf Replacers...



The NWF range of calf milk replacers are formulated to provide outstanding nutrition using high quality, traceable ingredients. They enable fast cost effective growth and development at this critical stage in life.

- Carefully selected milk solids with maximum nutritional value.
- Balanced blend of oils, homogenised and emulsified for maximum digestibility.
- Full supplement of vitamins, minerals and trace elements.
- Selected additives to help meet growth rates and support the health status of calves.
- Easy to mix and suitable for most automated and manual systems.

NWF ULTRA LIFE - SKIM

24% Protein, 20% Oil

A Life Start accredited skim-based milk replacer containing full additive pak. It is suitable for accelerated heifer rearing programmes.

This replacer contains the full additive pak.



NWF ULTRA MILK BLUE

22% Protein, 19% Oil

NWF's most popular milk replacer. High specification formulation on a whey powder base. A generally good all-rounder calf milk replacer.



NWF ULTRA MILK YELLOW

22% Protein, 18% Oil

A top quality, skimmed milk replacer containing the full additive pak. It is ideal for many systems, particularly those wanting something special from their youngstock.



NWF ULTRA MILK GREEN

22% Protein, 18% Oil

A skimmed milk based replacer, ideal to promote early bloom and a healthy-looking calf.



NWF ULTRA LIFE - WHEY

24% Protein, 20% Oil

This is a Life Start accredited whey-based milk replacer. It is suitable for accelerated heifer rearing programmes. This replacer contains the full additive pak.



ULTRA MILK GOLD

22% Protein 19% Oil

A superior quality, highly digestible skim milk replacer which has high levels of milk proteins. This replacer contains the Greenguard package.

ULTRA MILK RUBY

24% Protein 20% Oil

A superior quality, whey-based calf milk replacer, with elevated levels of oil and milk protein to promote accelerated growth and development at this critical stage of life.

NWF ULTRA HI PRO HEIFER

26% Protein, 17% Oil

This top of the range high protein, whey-based milk replacer is suitable for accelerated heifer rearing programmes. This replacer contains the full additive pak.



ULTRA MILK SAPPHIRE

22.5% Protein 18% Oil

A high-quality whey-based milk replacer, a good all-rounder replacer which has the addition of the Greenguard to support digestive health and performance.



Preparing for Tupping

Ewes should be grouped and managed accordingly to enable 90% of the flock to be in the correct condition when put to the ram (3.5 for lowland, 3.0 upland and 2.5 hill). Priority grazing to gain condition should be given to thin ewes, and those over fit should be held on barer fields to shift some body fat, taking them down half a condition score.

Flushing should be considered as a second measure if body condition is not as desired. Ewes in good condition are unlikely to have improved ovulation rates through flushing and therefore maintaining condition is advised.

Ewe lambs and yearlings should be managed separately. Lambs should be more than 60% of mature weight by mating, yearlings at 80% and fed accordingly, for maintenance growth and to produce a lamb.

REMEMBER TO:

- 1 Assess udders, teeth and feet**, an opportunity to cull ewes which are not fit for purpose and likely to cost in the coming production cycle.
- 2 Devise a health plan with your vet**: vaccinate where necessary particularly where toxoplasma and enzootic abortion are a risk.
- 3 Carry out a mineral and trace element assessment**, taking bloods to identify supplies and highlight any deficiencies.
- 4 Conduct a Ram MOT**, looking at the 5 T's; toes, teeth, testicles, tone and treat which should take place 10 weeks prior to tupping. Work with your vet to ensure a thorough examination.

Ram cuisine checklist:

- High quality, palatable ration to be fed 10 weeks before tupping.
- Look at the magnesium and calcium levels; Think about the inclusion of ammonium chloride to avoid urinary calculi.
- For nutrition to impact sperm quality, it takes 30-40 days.

Sources: AHDB, 2018 | Zoetis, Not Dated | Teagasc, 2016

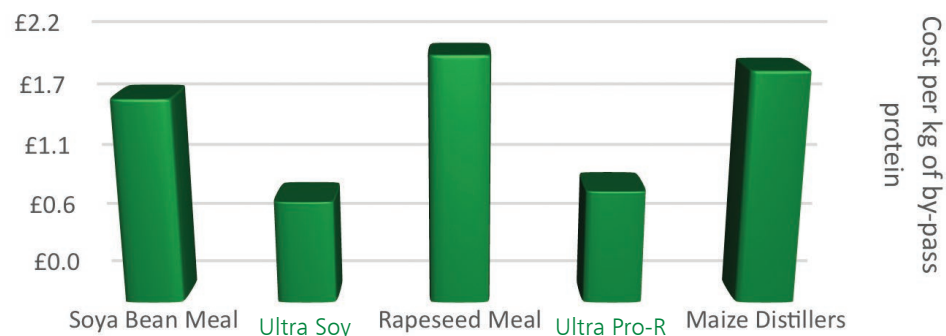
Release the value of your diet this winter, with NWF's protected 'Ultra' range of feeds

As winter approaches with healthy forage stocks that appear to be high quality, provides an opportunity to maximise forage use and yield performance.

It is important to ensure the rumen is balanced as this will enable the rumen itself to produce nutrients for the cow. However, to maximise lactation performance particularly in the high yielding or early lactation cow, additional rumen by-pass nutrients are required. This is often done by feeding protein sources such as distillers, rapeseed meal and soya bean meal which provide both rumen and by-pass protein.

The NWF range of protected proteins; Ultra Pro-R and Ultra Soy, assist with utilising rumen protein from home produced forage. Supplementing the specific nutrient required, in this case by-pass protein, does not have to be more expensive, it enables supplementation a lower total feed rate whilst still achieving higher by-pass protein intakes. The graph below highlights the cost per kilogram of by-pass protein, highlighting that Ultra Soy and Ultra Pro-R cost under £1/kg* of by-pass protein, providing a significant saving when compared to their protein counterparts.

Cost of including 1kg of by-pass protein



**Market depending.*

Contact your local NWF Sales Specialist, alternatively speak to Rupert Stafford, NWF Trading and Commodities Manager on 01829 262270.

Pick the correct dairy ration for your herd this winter!



Do not be tempted to feed the same ration as you fed last year without proper evaluation. Every year your forage quality will be different, this may mean the compound you fed last year will not match this years forages and therefore not give the same animal response.

NWF Agriculture offer free silage analysis to all customers and from this, your local FAR registered NWF Sales Specialist can advise on the best ration that will suit your system this winter using our rationing program Ultramix. Picking the right dairy feed could make all the difference in yield and margin.

The range we are offering this Winter is:

- **Octane** (WM & WI Only)
- **HDF Octane** (WM & WI Only)
- **Northern Pioneer** (LT Only)
- **Dairy Supreme** (WI Only)
- **Ultra Yield** (WM Only)
- **Xcelerator** (WM & WI Only)
- **Performance**
- **Goldstar** (WM & WI Only)
- **Milkline**
- **Target**
- **Gold Stellar** (LT & WM Only)
- **Butterline**
- **Gold Standard**
- **HDF Empire** (WM & WI Only)
- **Empire**
- **Premium Gold** (WM & WI Only)
- **Senator**
- **Cream Max** (LT & WM Only)

WM – Wardle | **WI** – Wixland | **LT** – Longtown

Milk from forage figures reach 10 year high



Kingshay recently published its 9th annual Dairy Costings Focus Report which includes an in-depth analysis of production system margins, allowing producers to compare to similar herds. It also includes an analysis of milk price trends to March 2020, plus data ranked by yield from forage, region, milking frequency, yield band and herd size of herds using the dairy costings service.

Average milk from forage figures were the highest they have been for 10 years, after flooding in 2012 and the drought of 2018. The average milk from forage across all conventional herds rose to make up 32.9% of

yields (2,759 litres) in 2019/20, up from 29.8% (2,486 litres) the previous year. However, the bottom quartile of producers (ranked by milk from forage) still have a long way to go, averaging just 15.4% (1,313 litres) of total yield from forage, whereas the top 25% of producers achieved 48.6% (4,043 litres).

How does your herd compare? Did you know that Kingshay level 1 is offered for free for all NWF customers?

To download your free copy of the Dairy Costings Focus Report please visit **www.kingshay.com**

THANK YOU British Farmers



This year has been incredibly challenging for everyone, we would like thank you for your continued support and business with NWF Agriculture.

Enquiries: **0800 756 2787** | Orders: **0800 262397**
E Mail: **nbteam@nwfagriculture.co.uk**



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