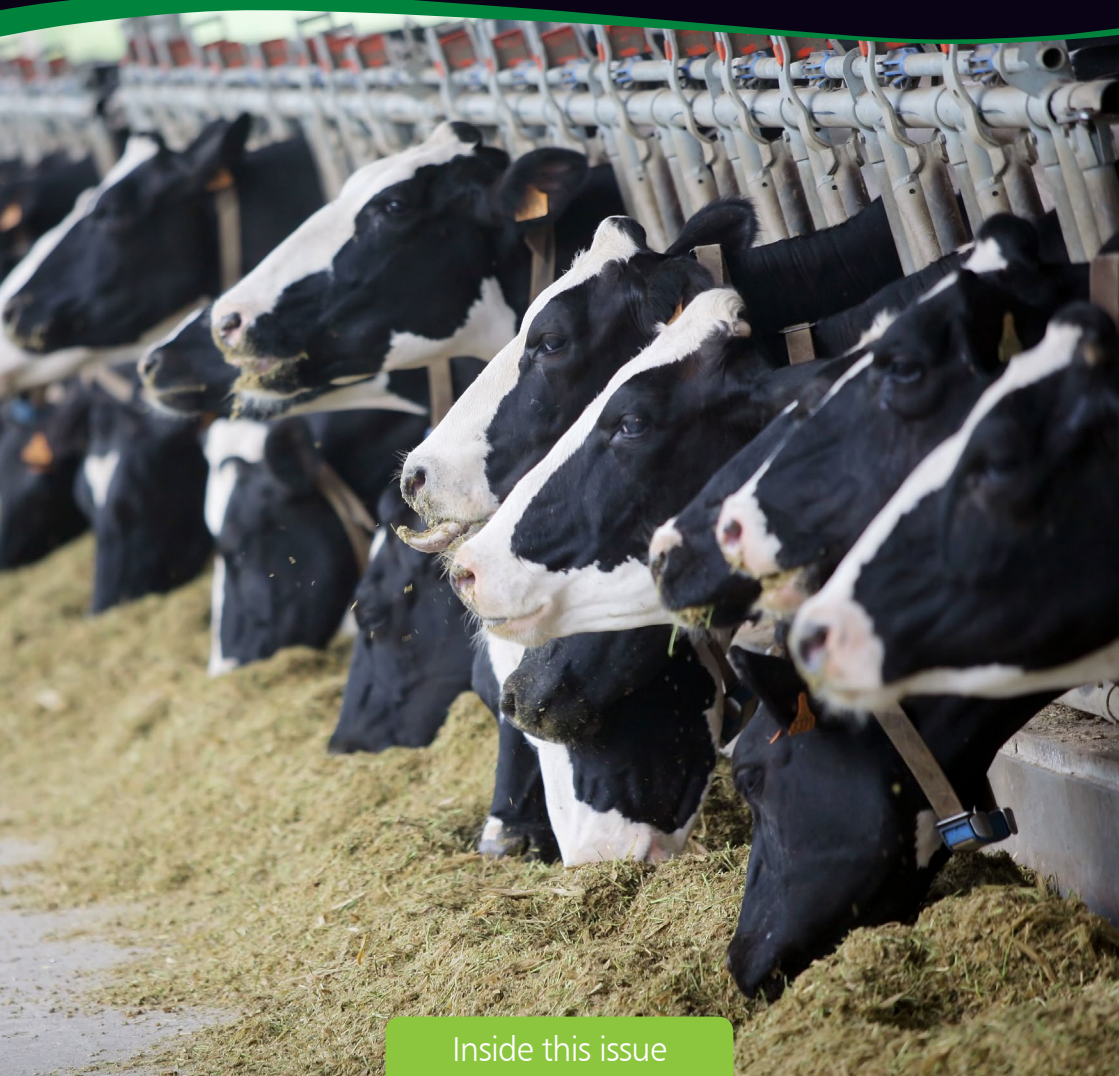




Inside this issue

Genomic Testing: Youngstock Special
Silage opportunities & challenges

Maximise Performance with Molasses
NEW Fusion Dairy Feed Range



Diversification with a difference

The Williams family at Meadow Lea Farm, Cheshire, have diversified into several businesses, utilising family members expertise to make the most of the facilities on the farm.

First-generation farmer, Bill Williams bought Meadow Lea Farm 11 years ago. Bill, who trained and worked as an engineer, always had a passion for agriculture and farming so when the opportunity arose, it was something the family could not let pass!

When they purchased the farm, it was running as a beef unit, however it had originally been a dairy farm and after running the figures, it made sense to go back into dairy. Animal health and welfare is a non-negotiable factor at Meadow Lea and a key reason behind why they went down the robot milking route.

Starting with two robots, the emphasis on free cow movement and the ability to get milked whenever the cows wanted were the main reasons for the robotic milking system. The three DeLaval robots have recently been updated by the family to support the herd growth and Mr Williams liked the fact that *"they are a simple and slick build, no bulkiness and the extra monitoring of milk quality is a huge bonus"*.

Meadow Lea is currently milking 135 cows and since working with NWF Sales Specialist Iain Couturier, they have increased milk production from 36.5 litres to 40 litres/day. *"Working with Meadow Lea Farm has been a pleasure and very exciting too. The barrier ration is an impressive 28ltrs alone due to brilliant forages made on the farm, balancing the barrier ration with our Goldstar 18 is working very well"* Iain explains.

In addition to the milking herd, Meadow Lea is home to dry cows and youngstock. Not only do they rear their own replacements, but they have capacity to house 700+ youngstock of which they are currently doing so for a neighbouring farm.

The aim for the dairy enterprise is to increase to five robots and build cow numbers up to 275. *"This is not going to be a quick development as we want to build this up with home-bred heifers"* Mr Williams explains. The farm is also a hive of activity having diversified into several businesses: a café which also makes ice cream, storage for caravans, a wool company, an Airbnb and a recently opened beauty facility! Meadow Lea is also home to Meadow Lea Rylands, a small flock of pedigree sheep.



Diversification with a difference (continued)

Meadow Lea Moos:

After constant questions from passing cyclists and walkers, about where the nearest café is, an opportunity evolved; how about the nearest café being here?! As there was a great emphasis on developing jobs and creating growth in the rural economy, an application was submitted to the RDPE Growth Programme and granted, which enabled the old parlour to be converted in 2013. This was extended in 2020 where they also started to make their own ice cream using the milk from their herd.

The benefits and the social aspects of the café and integrating with the public are hugely important for the family. *"There is a massive knowledge gap and misconception from the public on farming, it is important that we can do anything we can to not only reduce our risk as a farming business, but to educate people in the local area"* says Bill.

Meadow Lea Aesthetics:

Although covid has been challenging, things quietened down at the practice where Sian, Bill's daughter worked, and although trained as a dentist, Sian wanted her own business. During lockdown, Meadow Lea Aesthetics emerged offering another income stream, whilst making the most of the facilities.

Sian is a member of Tesco's Future Farming Programme and a huge advocate for sharing the positives of agriculture with the public. *"By having the café and the aesthetics (a not so typical business to have in a farm setting), it is a great way to educate some of the public which would have no exposure to a farming environment"*.



The Future:

With the family passionate about everything they do, from cows to beauty, there is a very positive outlook at Meadow Lea. In addition to increasing the number of cows and robots in the dairy herd, there are plans to expand the hospitality and beauty aspects.

NWF Agriculture would like to thank Bill and Sian for taking the time to speak to us about their business, and look forward to working together in the future.

Genomic testing of dairy youngstock

Genomic testing is a relatively new technology which can provide useful information about the genetic potential of youngstock. Dr Darren Todd from NBDC explains the advantages of genomics and how to use the technology. Before genomic testing came along, the only clues about how youngstock might perform in the dairy herd came from their parents.



Most AI sires have published estimates of their genetic merit, such as Milk kg, Protein % and SCC, which are also known as PTA. Because AI bulls can sire many milking daughters, these genetic can be estimated accurately. Indeed a 'reliability' figure is published alongside the indexes, telling us just how accurate the values are. For sires with milking daughters, reliability commonly ranges between 80 and 99%. A similar figure can also be estimated for milking females, but these tend to be less accurate at around 50 to 60%.

From the values of the parents, the genetic merit of the calf can be estimated – typically this is quoted as a 'parent average', which as it suggests is simply the average of the parents' figures. So, a calf with a sire having a PTA of +1000 kg for milk, when bred to a cow with a PTA of +500 Kg, will be estimated to have a MILK Kg PTA of +750Kg. However, the reliability of the estimate for the calf is only a half of the average of the parents' reliabilities. A 90% reliable sire, when bred to a 50% reliable dam, will only produce a 35% reliable calf. This is because the parent's DNA is arranged in new ways in the calf.

Thus, parent averages for dairy calves are not very accurate and are poor predictors of how the animal might perform once in the milking herd.

Genomic testing

With the advancements of genomic testing, information from a calf's DNA can be used to

greatly increase the reliability of the estimate of its genetic merit – typically up to around 60 to 70% depending on the trait. This increase in reliability is the key advantage that genomic testing provides, and it means that choosing which calves to keep as replacement females or as stock bulls can be done more accurately. In fact, about twice as accurately as before genomics testing was available.

The main impact of genomic technology in dairy cattle breeding has been the increased use of younger AI sires. About two thirds of dairy inseminations now involve 'young genomic sires' which are typically under four years old and have no milking daughters – but have higher genetic merit than most older 'daughter proven' bulls.

Interest in genomic testing of female youngstock has also grown in recent years. Over 100,000 UK dairy females have now been tested, although that only represents a small proportion of the population. The slower uptake on the female side reflects the less obvious cost-benefit compared with testing a potential AI bull that could eventually sire thousands of progenies.

However, with the cost rearing dairy heifers estimated at around £2000, genomic testing can offer value. Spending £20 to identify the best replacements more accurately can pay off if the technology is used sensibly.

Basic guidelines to help you make best use of genomic testing in your dairy herd

- 1 The benefits of testing will be greatest if you want to keep only a portion of your heifers as replacements.
- 2 Where available, check parent average data on your youngstock. Herds with the biggest range in genetic merit will have the most to gain from genomic testing.
- 3 If you decide to test, then do as many of the youngstock (which you are considering as replacements) as you can afford. Testing the odd animal is a waste of time.
- 4 Test animals that are a minimum 75% purebred (i.e., same breed of sire and maternal grandsire). Testing is not accurate in crossbreds.
- 5 Only Holsteins, Friesians, Jersey, Ayrshire and Guernsey have a UK genomic evaluation, so avoid testing other breeds for now.
- 6 Genomic test youngstock before you make any breeding decisions. Once the animal is mated there is less to gain. Testing older milking animals is not worthwhile.
- 7 Test with providers that supply UK genomic results, produced by the AHDB national genetic evaluations. They will be by far the most accurate for use in the UK.
- 8 From the genomic results, choose key traits (which you want to improve in your herd) to identify your best youngstock.
- 9 Consider testing potential stock bulls before you use them – they can have a big genetic influence on the herd.

For further information contact NBDC
www.nbdc.uk



Did you know we offer...



NWF offer a wide range of Technical Services to help livestock farmers. This includes an accredited rationing programme and laboratory service to help develop and sustain the correct diet for individual herds. NWF sales specialists work alongside livestock farmers and in-house nutritionists to develop tailored diets using our quality feed range of compounds and bespoke blends. Our aim is to maximise herd health and efficiency.

- **Dairy Costings**
- **Ration Planning**
- **Diet Sieving**
- **Dung Sieving**
- **Forage Analysis**
- **Clamp Capacities**
- **Body Condition Score Monitor**
- **Mobility scoring (ROMS)**
- **Cow and Calf signals**
- **Dry Cow Check**
- **Mineral Analysis**
- **Interherd Report using NMR and CIS Data**
- **Heifer Rearing Calculator**
- **Youngstock Growth Monitor**
- **Soil Analysis**
- **Water Testing**



Silage qualities present both opportunities and challenges this winter

By Adam Clay,
Head of
Technical



Every year presents different challenges with regards to silage qualities and quantities and the 2021 growing season is no exception. A cold spring left farmers questioning whether to take an early cut with low quantity or wait and hope the rain held off and allowed volume to grow. Overall silage quantities are healthy, with the challenge and opportunity to increase milk from forage this winter.

There are large variations between cuts and regions with regards to silage qualities, so regular analyses will be key to achieving consistently balanced diets this winter. Some key points that are consistent between the averages are summarised below:-

Dry Matter – With a grass silage dry matter average of 34.2%, a dryer silage crop should help give structure to the diet improving rumen health and butterfats. Dryer silages also allow farmers to chop silage shorter, as low as 20mm in many cases, which can help increase forage intakes and of course milk from forage. Dryer silages can cause some issues; particularly a threat to clamp stability as wild yeast cultures enjoy dry conditions when present with oxygen; so keep an eye on heating and ensure sheets are kept well sealed.

Despite the dryer average, there are still many wetter crops, with some 1st cut silages analysing as low as 15% dry matter which will pose significant issues with rumen health and forage intakes. Ensure these are supplemented with some dry structural forage to slow down rumen throughput.

Protein – At an average 13.5% protein, this year's grass silages have significantly underperformed and could cause problems with balancing diets this winter. 1st cuts actually averaged 12.5% protein which must be considered when switching silage cuts. When feeding 12kg dry matter intake of grass silage, 2021 crops will on average reduce dietary protein by 0.81% compared to 2020 crops. Whilst low protein diets are encouraged due to benefits in animal health and the environment, protein is essential for milk production, constituents and rumen bacterial growth. Effects of dietary protein being too low could be stiff dung, low milk protein, low milk yields and low peak yields, low protein diets can also result in later lactation cows dropping milk and putting on weight.

Regular silage analyses from the NWF accredited laboratory will be key in ensuring diets are balanced effectively. Low silage proteins do however give an opportunity, if we simply balance diets to achieve the same level of total dietary crude protein as last year's silages, this will cost typically 10 pence/cow/day or an increase of 0.8kg/h/d of rapeseed meal with no extra benefit in performance. However, if 0.5kg of soyabean meal is removed and included is 1kg/h/d of Ultra Pro-R, NWF's unique protected rapeseed meal, the cost would be the same as the previous example. However the increased supply of by-pass protein could yield an additional 1.4 litres/h/d of milk yield, particularly from early lactation cows.

Energy – An average 10.7ME across all grass silages is consistent with last years results, which shouldn't lead to any surprises this winter, 1st cuts averaged 11.1ME where 2nd cuts averaged 10.7ME so again a variation which we have come to expect. Regionally the averages were also consistent but again, the variation within an average is significant with some silages analysing just over 9ME but many 1st and 2nd cuts recording over 12ME, so continue to test your silage to balance accordingly.

pH – Ideally grass silage pH should sit in-between 3.8 and 4.2 but this is dry matter depending. Lactic acid levels, particularly in the North are strong and VFA's are not overly high which is all good news. Look out to heating and mold patches particularly in clamps that have not been as well compacted.

Feedback across all regions suggests silage quantities are healthy and qualities overall should enable higher intake characteristics and a potentially good milk yield from forage. The clear concern is low proteins which must be addressed. Simply increasing crude protein will increase cost with little reward, however with careful balancing, utilizing quality by-pass protein through protected protein sources like Ultra Pro-R, could enable strong milk production whilst reaping the benefit of a healthy lower protein diet.

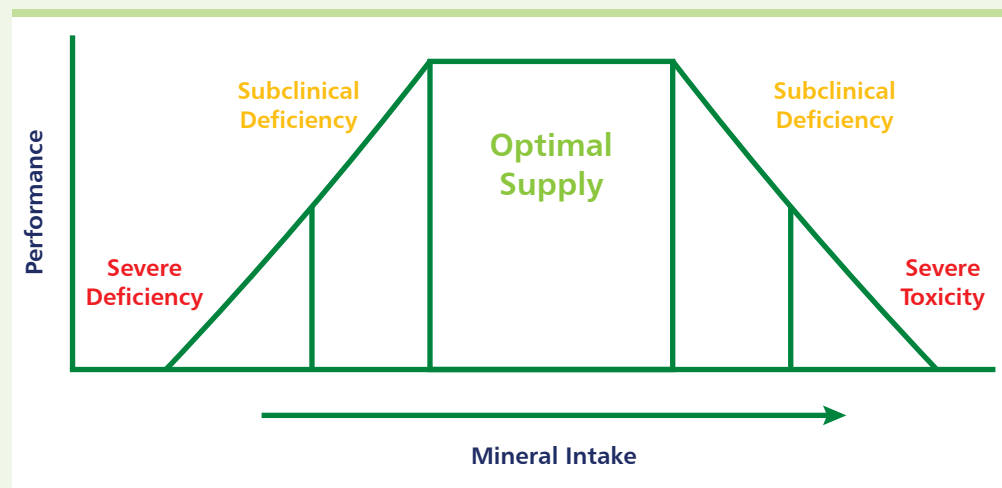
	Unit	South	Central	North
DM	%	35.4	33.4	33.7
Prot	%	13.1	13.5	14.0
ME	MJ/kg DM	10.6	10.7	10.8
NDF	%	47.4	46.5	46.0
Sugar	%	2.5	2.0	1.9
pH		4.4	4.3	4.2

Responsible Minerals & Sustainability



Minerals have an essential role in animal health and production and are involved in many core functions, such as metabolism, immunity, growth and fertility.

Minerals must be balanced to provide an optimal supply whilst avoiding over and under supplementation. If minerals are in short supply this can lead to subclinical or severe deficiencies, and if oversupplied can cause toxicity or antagonism issues.



Background dietary concentrations aren't always sufficient to meet the nutritional demands of the animal, therefore trace minerals must be supplemented.

Antagonists

Antagonists can play an important role in availability of key trace minerals, particularly copper (Cu), where it is important to consider effective supply through different sources to ensure adequate trace element reaches the bloodstream. One of the key antagonistic pathways is the Molybdenum (Mo), Iron (Fe), Sulphur (S) and Cu pathway. The ruminal interaction between Mo and S results in the formation of thiomolybdates, which then bind to Cu. The bound Cu is locked up and cannot be absorbed in the intestine, which subsequently can lead to Cu deficiency. Iron can also interact with Cu and S in the rumen to form an Fe-Cu-S complex which can also bind Cu, reducing bioavailability to the animal. High Fe levels also compete with Cu for absorption sites in the gut.

Different sources of minerals

When supplementing minerals, consider the delivery, whether this be via premix in compound feed, farm minerals, buckets or blocks. Of increasingly importance is the source of trace element within the premix/ farm mineral.

Three types of mineral source available for supplementation are; inorganic (sulphates/oxides), organic chelates (Optimins) and hydroxy trace minerals (IntelliBond) shown in Table 1.

Table 1. Differences between alternative mineral sources

	Inorganic salts	Inorganic oxides	Organic chelates	Hydroxy Trace Minerals
Sources	Sulphates Carbonates Chlorides	Oxides	Proteinates (Optimin®), Amino acid complexes, Amino acid chelates, Polysaccharides	IntelliBond®
Bond type	Ionic	Ionic/Covalent	Covalent	Covalent
Solubility	High	Very Low	Mixed	Low
Bioavailability (RBV)	Medium	Low	High	High
Cost	£	£	£££	££

Inorganic trace minerals are either highly reactive which has negative effects in terms of feed stability and palatability, or very insoluble which means they have low bioavailability to the animal. Organic chelates and hydroxy trace minerals are most bioavailable meaning less can be fed and there is a better chance of the trace element making it to the bloodstream. They are less reactive in feed which means all the nutrients, vitamins and minerals are delivered directly to the animal.

With sustainable solutions more necessary the key is to look at being more efficient and effective, therefore sustainable with mineral formulations.

3 key points for sustainable mineral supplementation:

- Take a forage mineral analysis to assess for mineral levels and antagonists.
- Are you oversupplementing? Too much means more excretion and waste.
- Are you supplementing enough? Lower levels of supplementation may lead to underperformance, health problems and early culling.

When practicing responsible mineral supplementation it is important to know the mineral supply from the complete diet and history of the animals plus any current health issues. Forage mineral analysis is important to avoid deficiencies and check for potential antagonists. Knowing the whole situation is key to ensure that the right amount is supplied for optimal performance.

Case study update: Cope's at Bawhill Farm

As mentioned in a previous NWF Youngstock Bulletin, Bawhill Farm have put significant investment into their new youngstock unit at Adderley Lodge. Collaborations with their vet, the NWF Youngstock Team alongside the introduction of new software have delivered benefits and improved management and traceability of the health and performance of the livestock on the farm.

Typically, the industry uses averages to explain and display key performance indicators (KPIs) and in regard to calf rearing, average daily liveweight gain (DLWG) is often used, and in many will suffice. However, taking an average can often over and under compensate animals which are not achieving the desired target or are growing over target.

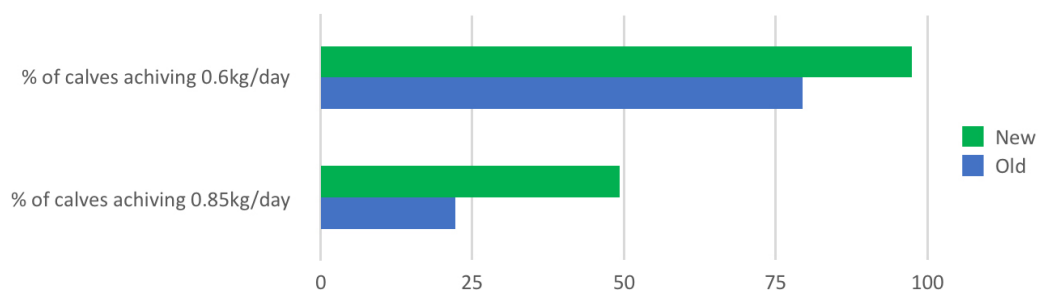
The calves at Adderley Lodge are being fed NWF's Lifestart approved Ultralife Skim milk replacer and have access to NWF's Deluxe Rearer, water and straw, whilst working closely with the youngstock team to digitally weigh the calves and monitor daily liveweight gain (DLWG) until weaning around 69 days old. Detailed reports are provided after each visit alongside raw data to be imported into the

farm's Bovisync software. This gives the farm the ability to track how animals perform in early life and will eventually be used to influence management decisions.

It is clear to see the improvements which have been made at the new unit and the calf performance reflects that. The graph below shows the percentage of calves achieving over 0.6kg a day (the lower critical threshold) which has increased by 20% and for those achieving over the desired 0.85kg have increased from 22% to nearly 50% of calves, which mean that there are more calves growing at higher weights. This is also supported by their impressive mortality rate running less than 2%.

It is also important to mention that the heifer calves are now on average growing over 200g/day more than they were in the old environment. Research shows this could provide an increase of over 500 litres of milk per heifer in their first lactation, another reason why looking at data can be beneficial to the bottom line. Further research suggests this could be a consequence of increased organ growth, including the milk secreting cells in the udder, in the first 50 days of life which is associated with a higher DLWG.

Percentage of calves achieving 0.6kg and 0.85kg DLWG



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

LIFE START
SETS LIFE PERFORMANCE

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

NWF ULTRA MILK YELLOW 22% Protein, 18% Oil

A top quality, 100% milk protein skimmed milk replacer also 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

LIFE START
SETS LIFE PERFORMANCE

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. 

NWF ULTRA HI PRO HEIFER 26% Protein, 17% Oil

This high protein, whey-based milk replacer 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. 

ULTRA MILK EMERALD 21.5% Protein 18% Oil

A skimmed milk-based replacer, containing Greenguard additive package ensuring that early bloom and healthy calves is promoted.

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. This replacer contains the Greenguard package.

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 Greenguard to support digestive health and performance.

www.nwfagriculture.co.uk



Milk from Forage

From the most recent Kingshay Dairy Costings Focus report (2021), yields from forage have increased consistently over the past 3 years. In 2020/21, on average cows produced 2,842 litres of milk from forage, compared to 2,759 litres/cow in 2019/20. The report also goes to mention that although milk from forage have improved, producers have opted to invest in greater yields over cutting costs.

In Cheshire, Willow Grove farm is home to the Crank family and their herd of 300 Holstein Friesian cows calving all year round.

Over the past two years there has been an emphasis on silage quality and getting more from forage, this has helped keep concentrate feed rates per litre of milk produced under 0.3kg/L. The farm also moved from twice per day milking to three times per day to improve the farm efficiency.

In November 2019, cows were achieving an average litres per cow of 10,000, with a milk constituents of 3.9% butter fat and 3.2% proteins. They were also getting 2,800 litres from forage (28% of production from forage).

In March 2021, the farm switched to 3 times a day milking, alongside high quality forage and high quality concentrates including protected proteins they have increased yield to almost 12,000 litres. Constituents have maintained relatively the same with 4,200 litres (35%) now being produced from forage.

More recent data from July 2021 indicated a further increase in the percentage of production from forage to 38%. This demonstrates that you can continue to increase your efficiency of production as your yield per cow rises with the right quality forage and a balanced ration.

As farm costs increase with a stagnant milk price the Cranks show that there is a way to improve the efficiency and maintain your farm profitability into the future.

NWF would like to thank the Crank family for allowing us to look at their data!

Student success supported by NWF

In collaboration with the University Centre Myerscough, NWF Agriculture were approached by one of their final year students, Grace Rothery, who undertook her BSc (Hons) Agriculture degree.

With ongoing discussions about sustainability and the use of soya, NWF supported Grace with the completion of her final year dissertation research project. Grace's dissertation explored the viability of replacing soyabean meal with protected rapeseed meal. The project was an on-farm trial, involving 50 cows which were split into two feed groups. The one group were fed a TMR which included soyabean meal and the other 25 cows received a TMR replacing soyabean meal with Ultra Pro-R protected rapeseed meal.

Although more research needs to be done to solidify the like for like replacement of protected rapeseed and soyabean meal, the dissertation concluded that no significant differences were found between the average milk yields, lying and feeding times, manure consistencies and content, rumination times and rumen fill scores for the two groups. The Ultra Pro-R blend was £32 per tonne cheaper than the soyabean counterpart and has demonstrated to be an effective soyabean meal replacement.

We would like to thank Grace and the team at University Centre Myerscough for this collaboration with hope to build more partnerships like this in the future.

NWF would like to congratulate Grace for winning the Best Student in Agriculture Award from the University Centre Myerscough 2021 which was presented at the Great Yorkshire Show. **Well done Grace!**



Taking a closer look at molasses

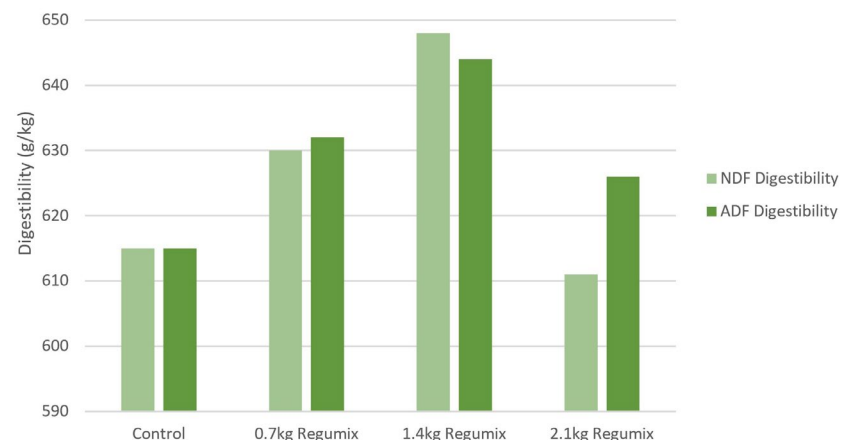
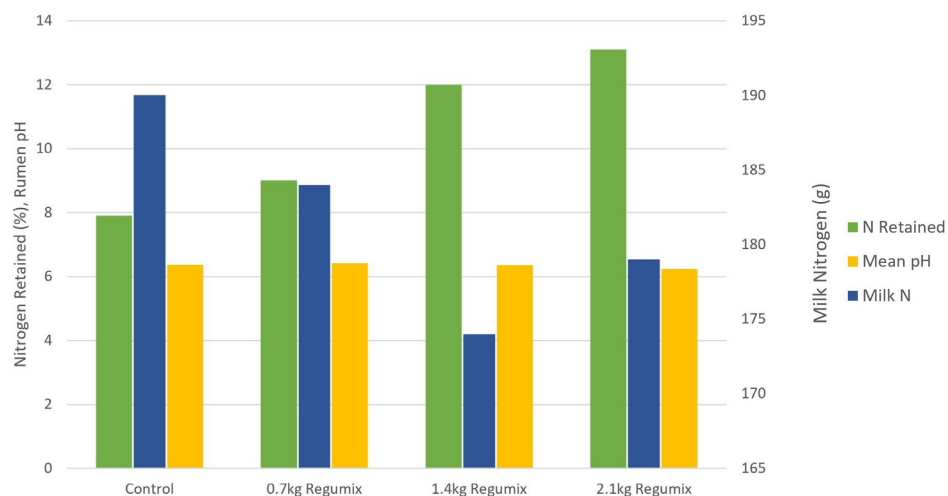
New trials at the University of Reading supported by ED&F Man demonstrates the benefits of feeding molasses, not only on fibre digestion, but also on nitrogen utilisation.

In the first trial, cows were fed on diets which contained the same energy and protein content but with differing amounts of carbohydrates. One diet contained no Regumix, a 27% protein, 53% sugar liquid feed while the others contained 0.7kg, 1.4kg and 2.1kg respectively. As the proportion of Regumix was increased, fibre (NDF) digestibility increased significantly meaning cows were making better use of forages.

Additionally, good rumen health was maintained, confirming that adding molasses does not increase acidosis risk.

There was also an increase in the efficiency of protein utilisation with more fed nitrogen retained and less excreted. Milk urea levels also fell showing that the Regulated Release protein in Regumix was effectively utilised by the cows.

Results

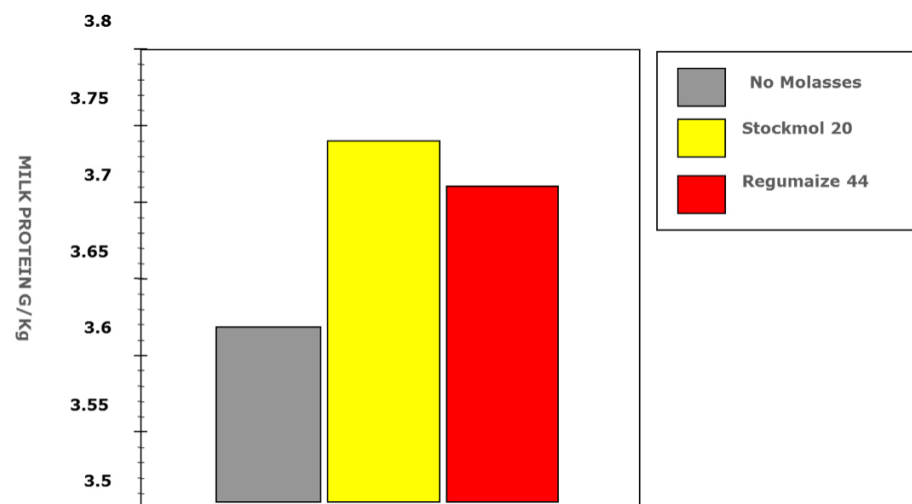


The second trial looks more closely at nitrogen efficiency, replacing a proportion of the rape and soya in the diet of mid-lactation cows with Regumaize 44, a 44% protein, 55% sugar, high protein molasses blend. In the trial diet 1.6kg of rape and soya was replaced with 2kg of Regumaize 44, both diets had the same energy and protein contents. Milk yield and butterfat

remain constant while milk protein was increased from 3.62% to 3.71%.

Based on August 2021 prices, the diet including Regumaize 44 would equate to a cost saving of £5,000 over the winter! For farmers on a constituent-based contract the additional milk protein can help support milk prices.

Results



Ref. Phipps, Jones and Holder - *The effect of two liquid feed additives on feed intake and milk production in lactating dairy cattle.* BSAS 1998

New Fusion Dairy Range

NWF Agriculture are committed to helping livestock farmers meet their sustainability goals. The 'Fusion' project is underway, looking at different areas of the business, their environmental impact and ways to improve them.

One outcome is to produce the NWF Fusion Dairy feed range. This range of dairy feeds does not contain soya, soya hulls or palm kernel and where possible, ingredients are sourced locally with provenance in mind. They also include Ultra Pro-R and Ultra Starch-W, NWF's own protected feeds range.

NWF Fusion Pro

- Available as an 18% protein.
- High energy but safer on the rumen, contains NWF's Ultra Starch-W protected wheat.

NWF Dairy Fusion

- Available at a 16% and 18% protein.
- High energy, with good glucogenic nutrients to support milk production. This also helps support cows in early lactation.

NWF HDF Fusion

- Available at a 16% and 18% protein.
- High fibre compound with quality ingredients formulated to balance high starch or grazing diets. Ideal for systems requiring high milk fats.

NWF Fusion Blends

- Bespoke formulations without the use of soya, soya hulls and palm kernel.
- Can be formulated to optimise home grown forage and feeds.

In an aim to ensure all customer requirements are met, NWF Agriculture can offer Triple S credits or RTRS credits should milk buyers/retailers require.

Cargill
Triple S™ Soy

Fusion
Sustain for a better future

Helping our customers respond to environmental challenges



At NWF, we are aware that our industry is under pressure with retailers and the public driving for cheaper food with higher standards, whilst government and lobby bodies are ensuring that farm payments will be linked to achieving higher environmental standards and minimising the environmental impact. As a business we have a key role to play in helping customers achieve improvements in their environmental impact.

Our energy and efficiencies

Every business can improve and minimise their environmental footprint to help reduce costs from a financial point of view but also from an environmental one. Through winter 2021 NWF will no longer use palm kernel in any manufactured feed, this will help reduce the amount of imported feeds whilst including higher quality raw materials into our diets. We are constantly investing in our transport fleet choosing the wagons and trailers which drive efficient use of fuel and routing them to ensure they are not running empty to optimise fuel usage.

Also, to help utilise raw materials and ensure qualities, we have stringent analysis and quality control procedures in place. By knowing what comes into the mills we are able to formulate accordingly to ensure we make the most out of the raw materials without compromising the nutritional status of our diets.

Our offering to farmers

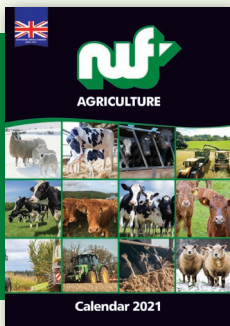
Recently we have created a dairy range called Fusion which has been formulated with raw material provenance in mind as well as not including soya, soya hulls and palm kernel. We are also able to formulate bespoke blends to complement your home-grown forages and feeds.

In the short term, one of the quickest ways to help improve efficiencies and therefore your carbon image is to look at what you are doing now. We offer a Kingshay service which can help identify what you are doing well and what could be improving, which can lead to increased efficiencies.

Cow Signals is another tool which can lead to fast improvements with little financial investment. NWF can conduct a cow signals survey, whereby looking at cow behaviour, areas of improvement can be highlighted which can increase cow comfort and therefore productivity.

Please get in touch if you have any questions about what we are doing to our business to help the environment and how we can support you!

Fusion
Sustain for a better future



2022 NWF Calendar

Are you a keen farming photographer?

For a chance to be featured in our 2022 NWF calendar, along with winning NWF products, all you have to do is submit your best farming photos online before 30th September.

www.nwfagriculture.co.uk/nwf-calendar-competition/

New Appointments

NWF welcome new team members:

- **Phil Maitland**
Northern Sales Director
- **Jim Cairns**
Senior Account Manager - North
- **Ryan McPherson**
Sales Specialist - North

We are pleased to welcome five new faces to the NWF Academy, starting this September across a variety of sales and technical roles.

Calf Signals Webinar



Watch the NWF webinar for Holstein Young Breeder by Abigail England and the NWF Youngstock Team.

<https://youtu.be/Maqelh4t9Vo>

Dates for the Diary

Visit the NWF Trade stand at the following events:

Dairy Show, Shepton Mallet | Wednesday 6th October 2021

Brailsford Ploughing Match, Ashbourne | Wednesday 6th October 2021

Borderway Agri Expo, Carlisle | Friday 29th October 2021

AgriScot, Edinburgh | Wednesday February 9th 2022 ***New Date***



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