



AGRICULTURE

News

Your NWF Newsletter

Spring 2019

Issue No.33



**Considerations for
feeding on low
forage quantities**



Find out about our
TechMix Products



Also inside this issue

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www.nwfagriculture.co.uk

Welcome

Welcome to the **new look NWF News** featuring technical articles to support your herd and flock, updates on our product ranges, business news and where you can meet the NWF team out and about this year.



GET TO GRIPS WITH TURNOUT

Farmers continue to hold out hope that the spring will deliver a welcome relief on forage stocks, but any benefit can soon be reduced if action isn't taken at the earliest opportunity.

The grass plant will only have 3 fully viable leaves, a fourth will grow but the first will die away and lie in the base of the sward. Allowing this to happen is not only a waste but can reduce plant establishment in the base of the sward. Early spring growth will generally produce 3 leaves, although each leaf is often quite small and can look as though there is not much pasture available. This can be misleading on the first grazing round, where the grass is actually quite dense and ready to graze, so don't delay while you wait for pasture height to develop.

'Turnout' doesn't have to mean cows are out all the time. Kennedy et al (2009), showed restricting time at pasture increased grazing efficiency by increasing intake per bite and per minute. This strategy can be used in two ways. One is spring turnout, restricting access time means when cows are out, they are grazing, particularly if they haven't received their buffer before being turned out. Pasture access for approximately 3 hours twice a day will ensure an efficient pasture intake without impacting too negatively on wet ground, tracks or gateways.

Research has been mixed, but tends to suggest access time being split as opposed to one total period at grass encourages both intakes per unit of time at grass, and milk yield. The other being total dry matter intake considering cows grazing behaviour. A typical Friesian/Holstein requires approximately 3 – 3.5% bodyweight in dry matter intake, (Jerseys and Guernsey's can be slightly higher). That's approximately 20kg DMI but forage intake will typically be 12 – 14kg DMI leaving another 6 – 8kg DMI to be achieved either in the parlour or down the trough.

That of course is assuming the forage intake can be achieved at pasture, which is often not the case and a further 2 – 4kg silage DMI may be required, so when should a buffer be fed?

Habitually, cows still fear a threat from predators in the night, but there are also photoperiod effects, this is why through the hours of darkness cows remain in the herd, and don't wonder to graze. Grazing activity and intake reduce to almost zero through hours of darkness, at sunrise searching activity peaks and grazing activity increases but the evening period prior to sunset sees the lowest searching period, highest intake and grazing activity period (adapted from Gregorini et al, 2013). There are also suggestions that pasture quality increases towards the end of the day, with lower proteins and fibre and higher dry matter, organic matter and water soluble carbohydrates.

To help achieve both high total dry matter intakes and high grazing intakes we can use this schedule to ensure that when we graze cows, we maximise the potential intake in the early morning when cows are hungry and in particular, afternoon and evening grazing whilst buffering through the quieter grazing period in the middle of the day. As for buffering, ensure diets remain fibrous during early turnout while the rumen bacteria adjust, this is based on both the physical nature of a wetter leafier pasture but also the high level rapid protein pasture offers.

Why are protected feeds needed in your diet?

Diets are formulated in different stages with different considerations depending on a farmers specific requirements. However in all cases, nutrient levels are balanced where possible to achieve a cost effective ration whilst achieving a high level of rumen health/function.

To achieve this, NWF feed advisors are highly trained in ration formulation using the latest in ration modelling to ensure diets are balanced effectively. An important example is protein, where by efficient rations achieve low overall crude protein and a high level of by-pass (microbial) protein which is produced from a functioning rumen. However there is rarely enough by-pass protein produced and it therefore needs to be supplemented through the diet, particularly for higher or peak yielding cows.

NWF use a protection method where-by protein is protected from rumen break down and passes through the rumen and released in the intestine more efficiently. This enables farmers to feed lower overall crude protein whilst still applying the optimum levels of by-pass protein to achieve higher milk yields and get cows to peak.

Ultra Pro R

As a rumen protected rapeseed meal, Ultra Pro R offers a viable alternative to soyabean meal by delivering 40% more by-pass protein. This can be particularly useful in balancing grazing diets, where cows still require by-pass protein supplementation but need very little additional rumen degradable protein.

Ultra Soy

Using the same protection method as Ultra Pro R, Ultra Soy is a protected soyabean meal offering more than double the level of by-pass protein to the hind gut. This can help farmers achieve peak yields whilst keeping costs down on rumen degradable protein. Ultra Soy has also been trialled on pre lambing ewes resulting in lower concentrate use and cost whilst increasing ewe health and reducing lamb losses.

Ultra Starch W

NWF's unique protection process also allows protection of starch, therefore allowing farmers to feed higher rates of Wheat (as UltraStarch W) whilst reducing the risk of excess rumen fermentation and therefore acidosis.



Considerations for feeding on low forage quantities



By Adam Clay

Whilst much of the country will have been thrilled with the hot summer of 2018 we have left behind, it continues to have negative consequences for farmers across the country.

The UK temperature and rainfall comparing 2017 and 2018 showed that a cold spring hit early growth rates and the hot summer dried out pastures. Coupled with reduced rainfall through June, July, August and September this has had an effect on grass/silage growth.

A recent article* published by AHDB online suggests an average of 13% reduction in forage stocks across the country with Scotland and the Midlands being the worst hit. Over a 6-month feeding period for 100 cows this equates to nearly 31 tonnes of dry matter, or another way to look at it is nearly 64,000 litres of milks worth of energy, either way, way you

look at it, many farms will have a deficit which needs to be filled and options reviewed.

Straw is often the 'go to' forage to space out silages. Whilst it will be effective at 'filling' cows up, it will reduce energy density so milk proteins may suffer and that could impact on bulling activity. Adding 3kg/head/day of straw will require over 200g/head/day of rumen protected fat such as Evolution Fat to lift energy levels back up to where they would have been. If milk proteins are required then choose cereals such as wheat, barley or maize to re-gain energy. The starch in these feeds will produce a propionate response in the rumen, having a significant impact on milk proteins.

(*Source: 'Forage survey confirms decline in grass silage quantities. Published 12.12.18)

EVOLUTION PROTECTED FAT

A cost effective high quality rumen protected fat to help improve the performance of high yielding cows, beef animals and lactating ewes by meeting the energy demands required.

Dry Matter	Protein	Oil	ME	C16 Fat	C18 Fat
97%	0%	85%	34 MJ/kg/DM	48%	49%

Evolution Fat can be incorporated into TMR Diets & Top Dressed onto forage and fed to response.

- Dairy Cows up to 500g depending on performance, cow condition and stage of lactation
- Beef up to 300g • Sheep up to 200g

- ✓ Improved peak and lactation yields
- ✓ Improved milk solids (butterfat and protein)
- ✓ Improved cow condition
- ✓ Improved fertility
- ✓ Reduced risk of acidosis and ketosis
- ✓ Reduced culling rates

Also available: Butterfat Extra a rumen protected fat extremely rich in energy and C16 fatty acids. A pure 99% vegetable fat derived from non gm palm oil in prill form.

Buying in wholecrop to extend grass silage may be an option, remember for every 1kg dry matter of grass silage swapped for 1kg dry matter of wholecrop, you will require an extra 0.2kg of rapeseed meal or 0.15kg of soya to re-gain the protein. Keep in mind the limiting factors of each forage – for example, Lucerne can have healthy protein levels but may require an energy lift to replace grass silage. For every 1kg of dry matter silage replaced with hay, you will require 75g/h/d of protected fat or 0.2kg of wheat, however the same exercise using Lucerne will yield a protein saving of approx. 0.2kg rape.

For most farms the only option will be increasing rates of purchased feeds, whether

that be compound feeds, dry and/or moist blends or straights. Whilst this of course will incur cost, the return can yield a profit should the responses be achieved. The yield deficit of 64,000 litres/100 cows previously mentioned could cost £17,280 (based on 27ppl milk price). That energy deficit can be fulfilled with approximately 29 tonnes of molassed sugar beet at a cost of between £6,200 and £7,800 depending on load sizes.

Of course, predictions are one thing, actual results are what count and cows must produce to deliver a return. With good advice, good products and regular monitoring, the forage shortage need not be as detrimental as first thought.

NWF OPTI RUMEN



NWF Opti Rumen is a unique blend of plant extracts, essential oils and spices, which positively alters the rumen microbes to ensure optimal fermentation for more efficient production. It is an important additive for:


✓ **Balancing excess rumen fermentable protein** ✓ **Buffering the rumen**

BENEFITS

- Removes excess N & decreases milk urea.
- Improves rumen buffering capacity by increased saliva production and pH which in turn increases rumen pH
- Increases butterfat by balancing rumen fermentable carbohydrates and protein, and enhancing fibre digestion

WHEN TO USE OPTI RUMEN

- If there is an acidosis risk, Opti Rumen can increase saliva production by 185%.
- To increase efficiency and feed conversion ratio.
- You help increase protein capture and decrease milk urea levels by up to 16%.
- Increase fibre digestion and improve rumen environment which can have a positive impact on butter fats (Table 1).

Table 1. Cows on a grazing ration + Opti Rumen had significantly increased butterfat compared to cows on the control diet ($P < 0.10$)
(Source: INRA unpublished) 

	Control	Opti Rumen
Milk Yield, kg	29.9	30.3
Butterfat, %	4.23	4.32
Milk Protein, %	3.35	3.38

FEED RATE

NWF Opti Rumen is included as standard in Grazemore and is available as an additive on selected compounds. Daily requirement 1-3g/ head/ day

Redefining Hydration and Gut Health

At NWF we know the importance of Hydration and Gut Health and offer a new range of TechMix products designed to meet the needs of the cow and calf. TechMix is an innovative, family-owned company, grown from its small-town Minnesota roots to compete in the global marketplace. The business is now a global supplier and industry acknowledged leader in hydration & stress event solutions for production animals. NWF is the sole UK distributor of TechMix products which are manufactured in Ireland.



NEW

THE TECHMIX RANGE FEATURES FOUR PRODUCTS:

For the dairy cow:

Fresh Cow YMCP



A fresh cow supplement featuring yeast, magnesium, calcium, potassium and niacin for the transition into lactation. 20 x 500g sachets in a 10kg bucket.

Rumen Yeast Caps



A source of yeast and vitamins for dairy and beef cattle. 25 boluses per pot.

For the Calf:

Calf Renova



A source of yeast products and essential oils to support digestive health. 12 boluses per pot, 2 pots per pack.

Bluelite Replenish



A scientifically formulated electrolyte to provide hydration for pre-weaned calves. 2 x 1.1 litre bottles per box.



Calf Coarse MIXES

The NWF range of high quality molassed Calf Blends have been formulated using the highest quality raw materials to put the bounce back in your calves.

NWF Sweetstart Plus Lucerne

Oil 4.40 | Fibre 9.3 | Starch & Sugars 37 | Protein 17

Stimulates appetite from day one to develop rumen growth, including Lucerne and Progress Plus, a specific mineral package with a prebiotic for gut integrity.



NWF Tasty Coarse 16

Oil 4.05 | Fibre 10.30 | Starch & Sugars 36 | Protein 16

A premium coarse calf blend with many of the benefits of Sweetstart, designed for silage or grass fed calves.



NWF Tasty Coarse 18

Oil 4.5 | Fibre 9.85 | Starch & Sugars 33 | Protein 18

Similar to the Tasty Coarse 16 but with added quality protein to complement various forage systems.



NWF Tasty Coarse 20

Oil 4.0 | Fibre 8.10 | Starch & Sugars 31 | Protein 20

Consistent with the Tasty range, Tasty Coarse 20 is designed to deliver quality protein for higher straw based systems.



Milk Powders for Fast Growing, Healthy Calves

The NWF Calf Milk Replacer range is formulated to provide outstanding nutrition using high quality, traceable ingredients.

- 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
- NWF milk replacers are easy-mixing and suitable for most automated and manual feeding systems.

NWF ULTRA LIFE

24% Protein, 20% Oil, 0.02% Fibre

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 MILK YELLOW

22% Protein, 18% Oil

The first choice for farmers wanting a skimmed milk replacer with the benefits of fibosel.

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 HI PRO HEIFER

26% Protein, 17% Oil, 0.03% Fibre

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.

NWF ULTRA MILK BLUE

22% Protein, 19% Oil, 0.02% Fibre

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

NWF ULTRA LIFE SKIM

24.0% Protein, 20.0% Oil

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

All products are supplied in 25kg bags.



Why Use Molasses?



There are numerous reasons to use a molasses, NWF Agriculture asked ED&F Man Commercial Manager Danielle Goatley to explain why.

- **Improve Forage/Fibre Digestion:** Forage is the major component of ruminant rations and key to effective rations. It is well known that adding a molasses blend to livestock rations improved fibre digestion. New research commissioned by ED&F Man has further highlighted this benefit and will be published later this year.
- **Help Manage Silage Stocks:** Livestock farmers have had to deal with a shortage of forage this winter. Many have also seen how using a molasses blend can allow the effective use of straw to make up the forage shortfall while maintaining performance cost effectively.
- **Improve Rumen Fermentation:** Effective rumen fermentation is vital to maximise livestock performance. Adding a high sugar molasses blend stimulates rumen function and leads to more extensive digestion and better nutrient utilisation.
- **Effective Magnesium Supplementation at Turn Out:** Spring turn out can be a challenging time for livestock especially dairy and suckler cows who have a high demand for magnesium. Magnesium needs to be supplied daily and adding it to a molasses blend is the ideal way to help reduce the risk of grass staggers/hypomagnesaemia. The sugars in the molasses blend mask the bitter taste of the magnesium and improved magnesium absorption from the diet.
- **Product Range:** ED&F Man, in partnership with NWF Agriculture, can offer a wide range of molasses blends to suit all livestock and to fit in with different dietary needs. From high sugar Standard Molasses and Stockmol 20 to high protein options such as Regumaize 44 & Regupro 50 as well as ration balancers such as Molale.

	DM	DM Basis		
		Sugars (TASAS)	Protein	ME
Standard Molasses	74	64	6.5	12.7
Stockmol 20	70	56	10	12.5
Molale	60	42	16	13.2
Regumaize 44	69	55	44	11.8
Regupro 50	60	42	50	12.6

- **Flexible Feeding Options:** Molasses blends can be fed in a number of ways including part of a TMR, top dressed over feed or through one of ED&F Man lick feeders. ED&F Man molasses blends are typically available in delivery sizes from 1000 litres to 29mts. Storage options are available including the tank finance scheme which avoids any upfront costs.



By Alison Kellet

Beef Market Insight

The UK average steer price in 2016 was 335.8p/kg and in 2018 this increased to 362.3p/kg showing increased production and demand.

However, with Brexit on the horizon beef prices have been variable over the past 7 months due to political uncertainty. January 2019 saw the average price almost 11p/kg lower compared to the same time in 2018, either due to Brexit or recent dry weather conditions. 2017 saw similar number of prime beef cattle hit the target specification; conformation (E-R) and fat coverage (1-4L) (56.6%) however only 18.9% of carcasses meet the desired R4L specification, 0.7% less than 2016.

In 2018 the number of steers and young bulls slaughtered down (-1.6%) but this was balanced by an increase in heifer slaughtering's (+4.7); this could have a big impact on the breeding herd in the future due to fewer replacements available. This increase in heifer

slaughtering came about around the drought period which brought with its lower forage stocks, making feeding animals challenging.

Japan has opened their market to British beef and lamb trade after a 23-year ban, with the agreement estimated to be worth nearly £130million over the first 5 years, with approximately £75million for beef. This is a move seen as a major boost for UK farmers and producers, as well as the UK's global reputation for high quality and welfare, especially at a time of trade deal debates.

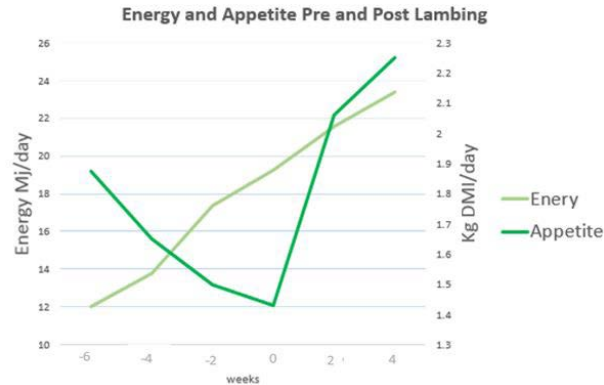
Due to the dry growing season there has been a wide variation in mineral content of forages, this should be considered when rationing for beef cattle. Mineral analysis of forages may be essential in order to allow effective mineral supplementation in order to allow optimal growth.

(Source: AHDB, DEFRA, NBA and Trouw GB)

Rationing Ewes for a successful lambing

With this year's challenging market conditions with feed prices, you may consider reducing feed rates however this may have a negative impact and in the long term be costly.

In the 6 weeks prior to lambing 75% of foetal growth occurs during late pregnancy, this corresponds with the increase in the ewe's requirement for energy and protein as seen in the graph below. The biggest challenge in meeting this energy increase is the lamb growth causes the ewes Dry Matter Intake (DMI) to drop up to 30% resulting in a DMI as low as 1.4 Kg. Feeding High energy Ewe feed such as Ewetrition Rolls or Champion Ewe Nuts help to meet the nutrition requirements of ewes.



When ewes have a deficit in energy, they mobilise back fat which is metabolised in the liver. If excess back fat is mobilised the liver can become overworked and appetite declines further. This can lead to pregnancy toxemia, hypocalcaemia, lower milk yield and increased lamb mortality. Most mammary gland development also occurs in the last month of pregnancy, under-nutrition can reduce colostrum quantity, and delays onset of lactation. Colostrum is essential for immunity. Lambs require 50ml/kg (of birth weight) of colostrum within the first 6 hours of life as the ability of the gut to absorb immunoglobulins into the bloodstream reduces after this time. Within 24 hours, lambs should receive 200ml per kg (of birthweight). As a guide an optimum birthweight for twins is 4-5kg per lamb (reference feeding the ewe).

PRACTICAL FEEDING TIPS FOR EWES

- Group ewes according to live weight, number of lambs, body condition and age
- Good quality forage available at all times
 - Know your analyses
 - Maximum 0.5 kg high quality concentrate per feed
- Adequate trough space
 - All ewes can eat concentrate at the same time
 - Clean troughs
- Regular feeding time no sudden changes in feed type or quality
- Clean water available at all times

100% of lamb growth in the first 4 weeks is dependent on milk. After this date introducing Fast Lamb Pellets will increase the suckling lamb's nutrient intake. This can help achieve target weights and condition, reduce risks of parasites and can allow an increase in stocking densities. When introducing creep, do so carefully to avoid gorging and acidosis. Wean lambs at around 12-16 weeks, weigh regularly after to record growth rates and predicted finishing dates. This can also indicate if there are any issues in nutrition and health.



NWF Feed and Mineral Lick Buckets

NWF supply a range of molassed feed and mineral supplements in the form of buckets, licks and feed blocks as well as a range of minerals and liquid feeds to enable dairy, beef and sheep farmers to maximise animal performance from home-grown feeds and forage 365 days of the year.

NWF MINERAL BUCKET RANGE INCLUDES:

Cattle Protein

A high protein feed and mineral lick ideal for youngstock, stores and replacement heifers.

Dry Cow

A specifically formulated dry cow mineral-vitamin lick to support the nutritional requirements of in-calf cows and heifers.

Hi Energy

A high energy feed and mineral bucket for feeding to sheep and cattle at grass or alongside low protein and energy forages.

Cattle Min

An all year round vitamin lick for all cattle and calves.

Easy Lamber

A very high specification feed and mineral lick specifically formulated for supporting ewes during the six weeks pre-lambing.

Magnesium

A feed and mineral bucket with an extra high level of magnesium for feeding to breeding and lactating cows and sheep that are at risk from staggers.

Don't forget to order Lamb Milk Powder

NWF Ultra Lamb is easy to mix and fully formulated to provide all the nutrients required by the lamb. Highly digestible with natural health protection and has been designed for use as a complete replacement for ewe's milk and deliver outstanding growth rates.



Grass Seed Mixtures

NWF have a comprehensive range of grass seed mixtures which are bred, grown, blended and packed by Barenbrug UK. We work closely with Barenbrug to ensure that every year we are blending and updating our mixtures with the best varieties for our customers which produce excellent results. Our most popular and proven mixture is Champion blend which is our best seller for the third consecutive year.

In our product range we offer a wide variety of Short, Medium and Long-term Leys. The option to have bespoke mixtures is also available; we can formulate a mixture to suit any of our requirements.



FERTILISER

NWF offer a comprehensive range of fertilisers backed up by technical and analytical services to ensure you apply the nutrients your grassland need in the most cost-effective way.

SHORT TERM LEYS – 1 to 2 years

Ultra Turbo Mix

A highly productive short term Italian ryegrass blend.

Ultra Renovate

Ideal to improve the productivity of a low performing tired ley for up to 2 years.

Ultra Early Abundance

The ultimate high yielding high quality short term cutting mix.

After Maize Fast Grass

Delivering a high quality grass crop after maize has been harvested.

SHORT TERM LEYS – 2 to 3 years

Ultra Hi-Pro Red

An outstanding high yielding high protein cutting ley.

MEDIUM TERM LEYS – 4 to 5 years

Ultra Cut n Graze

An excellent cutting and grazing ley for 3 to 5 years duration, ideal for early lambing or extended grazing of dairy cows.

Ultra Intensive Dairy

A highly productive grazing ryegrass mixtures that will give season long quality forage.

Ultra Longlife

A permanent pasture mixture, with the option to take later cuts of quality silage.

LONG TERM LEYS – 5 years plus

NWF Champion Grass Mixtures

The number one selling mixture. A proven long term top class dual purpose mixture which produces excellent quality forage production whether cut or grazed. Contains NIAB listed high quality grass varieties available.

Champion with Clover

Champion without Clover

CLOVER BLENDS

Ensign White Clover Blend

Red Clover Blend

In addition to grass seed NWF supply a range of forage seeds including maize, sugar beet, turnips etc. To plan fertiliser requirements

NWF offer a Soil Analysis Service, kits from £15 to test for pH, P, K & Mg and provide, grass walking & measuring, grass testing and pre-cut analysis.



Soil Analysis Kit from £15 for pH, P, K & Mg

The range includes Ammonium Nitrate, Ammonium Sulphate and Top Yield blends, standard grades and bespoke grades available;

- Nitram 34%
- Double Top 27N 60SO3. Single Top 27N 12SO3
- Ammonium Sulphate contains 21N 60SO3 2-5mm grade
- 25-5-5
- 27-6-6
- 20-10-10
- 24-0-15
- 24-0-14 with 7.5% sulphur

NWF also supply a range of straights for grassland, forage and arable crops including;

- Muriate of Potash (MOP)
- Triple Super Phosphate (TSP)
- Diammonium phosphate (DAP)
- ASN
- Ammonium Sulphate
- Urea
- Lime

Out & About

Meet the NWF team out and about in 2019, visit the NWF trade stand for information on the comprehensive range of compounds, blends and associated products and seek expertise advice from the sales team who are registered FAR Advisers and Master Cow Signal Trainers:

- Borderway UK Dairy Expo - Saturday 9th March
- Staffordshire County Show - Wednesday 29th and Thursday 30th May
- Royal Cornwall Show - Thursday 6th, Friday 7th and Saturday 8th June
- Nantwich Show - Wednesday 31st July
- North Devon Show - Wednesday 31st July
- Dumfries Show - Saturday 3rd August
- Holsworthy Show - Thursday 22nd August
- UK Dairy Day - Wednesday 11th September
- Westmorland Show - Thursday 12th September
- Cheshire Ploughing Match - Wednesday 25th September
- The Dairy Show - Wednesday 2nd October
- Brailsford Ploughing - Wednesday 2nd October
- Borderway Agri Expo - Friday 1st November
- AgriScot - Wednesday 20th November



FEED ADVISER REGISTER (FAR) – Setting the Standards for Feeding Advice

Did you know that NWF Sales Specialists are registered as FAR Feed Advisers. The Feed Adviser Register (FAR) was established in May 2013 by AIC Services and key UK farm animal feed industry representatives. Its development was a response to Government's need to reduce greenhouse gas emissions from farm livestock. That ambition, together with recognising the professionalism of the industry, led to the Register's creation. There are now over 1,000 registered Feed Advisers throughout the UK.

Find out more online www.feedadviserregister.org.uk



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