

 **KRONE**

ISSUE 6 | 2017

BiG TIMES

The industry leader in hay and forage equipment

FORAGE MATTERS **IT STARTS IN THE FIELD**

SEE PAGE 10 AND 11



SWADRO RAKES

PRODUCE

QUALITY FORAGE



DAIRY
FARMER

WORKING WITHIN
A SYNDICATE

R Vanstone, Devon



“THE LIFT TINES REDUCE RISK OF CONTAMINATION”

“The Krone lift tines help keep the crop off the ground reducing the risk of soil and stone contamination risks, particularly on new leys or stony ground”



Take a closer look at why Forage Matters at www.krone-uk.com

FORAGE
MATTERS

Welcome

Welcome to the spring 2017 edition of our 'BiG Times' newsletter. As I write this, I know that due to the mild winter and spring, most of this year's 'first cut' silage is well underway and some of you have already finished. This early start to the silage season could potentially have a positive impact, as subsequent cuts can be taken earlier, resulting in more, smaller yielding cuts, rather than the more traditional fewer bulkier cuts.

The smaller yielding cuts will be leafier at each cut, so should be of better quality with a higher digestibility (D value) and more useable energy content. This is important as producing better quality silage is what's needed to produce more milk. After the grass has headed, the D value falls by 0.5% per day. A 1% reduction in digestibility can equate to a reduction in milk yield of 0.37 litres per cow per day. Whether you choose to take advantage of the early season or not, you will still end up with the same overall yield of grass.

In this edition, you can read more about how the correct use of mowers, tedders and rakes, combined with timing can significantly help to improve silage quality. Choosing when to cut based on the grasses growth stage and not the calendar, combined with reducing soil contamination will pay dividends in achieving the most from your grass.



Marcus Oliver
Managing Director

You will also find news on several new products now available from KRONE, including the new VariCut chopping unit fitted to our BiG Pack large square balers. The VariCut provides a maximum of 51 knives, which can produce bales consisting of shorter chopped straw, now as popular as ever for livestock bedding and incorporating into feed rations.

Whether your harvest be forage for livestock, crops for AD plants or baling straw, may I take this opportunity to wish you all a successful 2017 harvest.

Marcus Oliver
Managing Director
Krone UK



BiG TIMES

What's in this issue

NEW APPOINTMENTS AT KRONE	P4	BIG X SHOWS ITS METAL	P12
NEW MODEL FOR FORAGE WAGONS	P5	BIG PACK BALER IS THE BUSINESS	P13
VARICUT - FLEXIBLE CROP CUTTING FOR BIG PACK BALERS	P6-7	FOR STRAW ENTERPRISE	
BIG X 700/770	P7	BIG X FORAGE HARVESTER BOOSTS PERFORMANCE	P14
BOOST PERFORMANCE IN THE FIELD	P8-9	DIFFICULT DECISIONS TAKEN NOW TO BENEFIT NEXT GENERATION	P15
FORAGE MATTERS-IT STARTS IN THE FIELD	P10-11	BUILD QUALITY AND BACK UP HELPS BALER PURCHASE DECISION	P16

Krone UK Ltd

Peckfield Business Park
Phoenix Avenue, Micklefield
Leeds LS25 4DY

Tel No: 0113 287 8800

Fax No: 0113 287 8811

Parts Tel No: 0113 287 8808

Parts Fax No: 0113 287 8812

Internet: www.krone-uk.com

 <https://www.facebook.com/KroneUKLtd>

 @KroneUK

 @KroneUK

 Krone UK Ltd



PEACE OF MIND



Extend your peace of mind with KRONE Warranty Plus. For that extra reassurance on our larger machines, our Warranty Plus scheme is there to give extended expertise and all round protection against unexpected repair costs and replacement parts; once the standard warranty agreement terminates.

Choosing either an additional 12 or 24 months cover means you can take control of your operating costs. KRONE Warranty Plus provides an extension of KRONE's standard manufacturer's warranty and is subject to its terms and conditions.

Warranty Plus is available on all new:

- BiG M self propelled mowers
- Comprima round balers
- BiG Pack large square balers
- BiG X forage harvesters and headers

Costing as little as 11 pence per bale or £1.83 per hour* Warranty Plus can ensure peace of mind and protection beyond the first 12 months.

* Based on 24 months Warranty Plus for a Comprima @ £2,695 with a maximum bale limit of 25,000 bales and a BiG M @ £5,500 with a maximum engine hour limit of 3,000 hours. Available on request.

Dates for your diary 2017

24TH & 25TH MAY

GRASSLAND & MUCK 17 @ STONELEIGH

22ND – 25TH JUNE

ROYAL HIGHLAND SHOW @ EDINBURGH

24TH – 27TH JULY

ROYAL WELSH SHOW @ BUILTH WELLS

4TH OCTOBER

THE DAIRY SHOW @ SHEPTON MALLET

15TH NOVEMBER

AGRISCOT @ EDINBURGH

12TH – 18TH NOVEMBER

AGRITECHNICA @ HANOVER

NEW APPOINTMENTS AT KRONE

Krone UK has appointed Dan Mallard as the new territory manager for Central England and Wales. Dan is from a Herefordshire farming family where sheep and cider fruit are the main focus. He achieved HND in Agricultural mechanisation from Harper Adams University, from where he went to the John Deere dealership Alexander and Duncan in Leominster as parts assistant.

Prior to joining Krone UK in January this year, Dan spent five years with Spearhead Machinery Ltd covering the south west of the country where he gained a good grounding in territory management and sales.

Dan says that his appointment with Krone UK is the next logical move in his career path that will hopefully see him progress up the chain into a managerial role in the future.

"Krone is a family business which specialises in high quality forage and grassland equipment, offering farmers and contractors unrivalled service and expertise in this competitive market sector," he says.

"The company is recognised globally as an innovator and a leader in the field of forage technology, which presents me with an excellent opportunity to develop all my core skills as well as build a new portfolio of customers," he says. "I'm ready to move up to the next level of turnover in terms of business size."

Esther Fawkes has joined the After Sales team as a technical support administrator, Esther's main role is to provide service and parts information to KRONE's dealer network to ensure they continue the high level of service expected in today's market place.

Esther comes from outside the industry and brings with her a wealth of experience in coordinating service teams.



Esther Fawkes



Dan Mallard

HELPING YOU LOOK THE PART

New additions to KRONE's merchandise range will help you look the part whether it's working on the farm or down the pub.

Joining our well established and ever growing range of merchandise is a new ½ zip sweater, soft shell gilet and a Weapons of Grass Destruction T-shirt. Designed with a combination of style, comfort and durability in mind, all of our merchandise can be purchased from your local KRONE dealer or online at www.krone-uk.com and for a limited time only there's a 10% discount for all items ordered online by the 31st August 2017, simply enter **BIGTIMES6** at the checkout.



NEW MODEL FOR FORAGE WAGONS



The hardox faced rotor and 46 knives produce a theoretical chop length of 37mm



The RX 400 & RX 430 feature a pivoting headboard which swings forwards during loading to increase capacity, then pivots backwards to enhance unloading



The RX wagon is built on a common chassis and available with 3 different capacities, this is achieved by adding a pivoting headboard and a rear extension

Krone has expanded its forage wagon ranges by adding the new RX series. The RX is built around a common chassis with the increase in capacity achieved by firstly adding a pivoting headboard and secondly a rear extension to provide three different capacities; the RX 360 GL/GD (vertical headboard, short tailgate), RX 400 GL/GD (pivoting headboard, short tailgate) and RX 430 GL forage wagon (pivoting headboard, long tailgate). The RX range fits between the existing MX and ZX ranges to provide more options and greater flexibility.

Crop collection is now enhanced thanks to the 2,015mm wide EasyFlow camless pick-up, with the double tines arranged in a "W" pattern. This guarantees a consistent crop flow across the full working width of the machine and avoids peak loading associated with a more conventional tine arrangement. The crop is then fed into the wagon via an 8-row rotor cutter with hardox plated tines, through 0, 23 or 46 knives to achieve a nominal chop length of 64mm or 37mm. Each knife is individually sprung protected and the knife bank swings out to the side for easy and ergonomic knife changing.

Efficient loading of the crop into the wagon body is achieved thanks to the sloping floor which eliminates the need to push the grass vertically before it can be transported by the conveyor floor, the sloping floor also helps utilise the available volume by preventing the crop from rolling backwards.

'PowerLoad' automatically activates the chain and slat floor when required moving the load backwards, this is done gradually ensuring that a uniform fill is achieved each and every time, maximising the load space and reducing operator fatigue.

The hydraulic axle assembly warrants great roll stability, distributing the weight evenly on the right and left side and minimizing vertical travel for maximum road safety and operator comfort. The system effectively reduces the risk of roll, shifting of weight and overturn. The hydraulic axle assembly is standard specification on all Krone RX forage wagons. In addition, the slim drawbar makes for tightest turns and great manoeuvrability.



The 51 knives are housed in a removable cassette, making light work of any maintenance.



Short chopped straw is becoming popular for bedding and adding to feed rations. With all 51 knives engaged bales can be produced containing straw with a nominal chop length of 22mm

VARICUT – FLEXIBLE CROP CUTTING FOR BIG PACK BALERS

In response to an ever increasing demand for large square bales containing shorter chopped straw, KRONE have introduced the VariCut cutting system for its BiG Pack large square balers. Initially developed for the BiG Pack 1270 and BiG Pack 1290 HDP the VariCut (VC) features 51 knives mounted in a cassette which can be removed in a matter of moments for easy cleaning and maintenance..



BIG X 700/770

2017 sees the BiG X 700/770 models now powered by Liebherr V8 engines. Built using hard-wearing components, the Liebherr V8 engine has twice as long service interval as its predecessor with engine oil and filters only being changed after 1,000 working hours. It features high torque even at low engine speeds with plenty left in reserve for operating in variable crop conditions.

PowerSplit and ConstantPower features on the BiG X remain, with PowerSplit automatically adapting engine output to harvest conditions. ConstantPower senses the current load and controls ground speed ensuring the engine always operates within optimum torque and output ranges.

As standard the knives can be used in combinations of 51/26/25/12/5 or 0 with 51 knives producing a nominal chop length of 22mm, these knife combinations can be easily engaged by the turning of a cam shaft. Should the user require a non-standard combination then this can be customised by rearranging the cams on the shaft. Feeding the crop through the knives is a rotor cutter, which now features a fourth row of tines to maintain a smooth flow of crop into the VFS pre-chamber and achieve higher throughputs.

An integral air cleaning system helps minimise the build-up of material around the knives, including the protection springs. The ability of the blade cassette and floor to lower means that any blockages can be removed quickly with minimum effort.

The use of short straw has gained popularity in a number of applications ranging from bedding in poultry houses, cow cubicles and pig pens, to adding structure to feed rations to increase ruminant activity and increase digestion. The VC cutting system produces short chopped straw in the field which is easy to handle and use, either spreading or incorporating into feed, and negates the need for an additional chopping process which can be costly and time consuming.

BOOST PERFORMANCE IN THE FIELD

To meet the constant changing demands of forage harvesting, KRONE have introduced a selection of new machines to complement their existing ranges of mowers, tedders and rakes, as selecting the appropriate machine for the job can significantly improve performance.

Front and Rear Mower

Built on the existing technology associated with all EasyCut mowers, the new EasyCut F 320 CV front mounted mower conditioner, with a cutting width of 3.16m, features the choice of either a pull or push type headstock, providing a choice of attachment to suit individual needs. The pull type headstock allows quick and easy attachment to the tractors front linkage, ideal for regular hitching and unhitching, especially from multiple tractors. Raising and lowering of the mower bed is operated via a single acting spool. Conversely, the push type headstock provides a closer coupling to the tractor, particularly convenient when a reduction on front overhang of the mower is required to decrease the load on the tractors front axle or increase forward visibility.

Regardless of the choice of headstock, the cutting height of the new EC F 320 CV mower can be simply adjusted to achieve the appropriate stubble height ensuring forage is not wasted or regrowth is not impeded. Plus the CV steel tine conditioner with a seven stage adjustable baffle plate and twin speed rotor to provide a speedy efficient wilt to help preserve grass sugars.

Complimenting KRONE's existing line up of rear mounted mowers is the new EasyCut R 400 rear mounted mower without a conditioner. Capable of producing one or two swaths, depending on disc rotation direction, the EC R 400 provides a cutting width of 4m making it the ideal choice for mowing large areas where conditioning of the crop isn't required.

Keeping the theme associated with all KRONE mowers, both mowers feature KRONE's SafeCut impact protection system, protecting both the discs and mower bed from overloading caused by impact and the SmartCut mower bed with quick change blades, ensuring fresh sharp blades can be fitted in the field in a matter of moments.

Trailed Tedder

The new KWT 1300 tedder from KRONE increases productivity and aids the production of quality forage. Featuring 12 rotors, providing a 13.1m working width, the KWT 1300 tedder allows the operator to cover more ground without increasing forward speed, which can impede performance associated with an increase in forward speed.

Each rotor is equipped with six tine arms, each fitted with a colour coded double tine. As with existing KRONE KW tedders, the tines are of unequal length to ensure that as the pass over the ground to produce the 'CombEffect' ensuring that the entire crop is lifted off the stubble without disturbing the ground and contaminating the forage with soil.

The integral transport chassis is attached to the tractor via a lower ring hitch or the optional 3 point linkage 'Plus' headstock with spring relief, whilst switching from road to field mode is carried out hydraulically. With the 'Plus' model the operator can control how much weight is transferred from the main transport wheels to the rotor wheels, and vice versa, helping to protect the crop.

Twin Rotor Rakes

New to KRONE's line up of twin rotor rakes is the entry level model Swadro TC 640 that rakes 5.7m to 6.4m into 1m to 1.7m swaths whereas the higher capacity Swadro TC 930 model, offers working widths of 8.1m to 9.3m with a swath width of 1.3 to 2.5m.

Robustly built, the cardanic rotor suspension system allows the KRONE Lift Tines with their curved ends, to accurately follow the ground whilst lifting the crop as it is being collected, hence minimizing crop contamination from soil and stones, and permitting an increase in forward speed and productivity of 27% without increasing crop losses.

Maintenance-free rotor gearboxes with the heavy-duty and unlubricated Duramax cam track provides excellent tine control and rapid tine lift out from work, resulting in an even box shaped swath, which can increase the harvesting performance. Each rotor is mounted off balance to produce the jet effect, meaning the front of the rotor is first to lift out of work and last to enter, ensuring that the tines will not scratch the ground as they lift and lower, minimising soil contamination of the forage.

Artic-steer running gear with a forward sloping beam and Y gearbox is a stand-out feature on the TC 930 but comes as an option on the TC 640. The transport height for both models is under 4m and there is no need to fold the tine arms.

Both the Swadro TC 640 & Swadro TC 930 feature manual rotor height adjustment which allows the working height to be set by hand whilst stationary. If adjustment on the go is required, then the TC 930 Plus features electric rotor height adjustment. Both methods allow the working height to be set to the mm ensuring efficient collecting of the crop regardless of conditions.





The correct forward speed when tedding is critical in achieving an even lump free spread. The KWT 1300's working width of 13.1m can increase work rate without increasing forward speed.



The pull type headstock on the EC F 320 CV mower allows quick and easy attachment to the tractor.



Each rotor has a diameter of 1.5m and is equipped with 6 tine arms, each with a colour coded double tine. This size of rotor is ideal for a variety of swath widths and crops to be tedded.



The Swadro TC 640 rake has a working width of 5.7 to 6.4m producing a swath from 1 to 1.7m. The optional steering rear axle allows access to the tightest of spaces.



The EC R 400 mower without a conditioner, produces a 4.04m cutting width and features many familiar features, including SafeCut protection, SmartCut mower bed and quick change blades.

FORAGE MATTERS

IT STARTS IN THE FIELD

The importance of grass as a valuable feed source is often underestimated. If you treat your grass with respect you are well on track to producing cost effective quality forage, increasing yields and reducing costly dietary supplements. It's often said that silage is made in the clamp, and this is true, however your actions in the field can have a big impact.

The biggest influence you the farmer or contractor can have over making good quality forage is timing, from when to mow the crop, how long it should be left to wilt and how to present the crop ready for harvesting. There are two factors which dictate timings, weather and output; whilst many have tried to tame the weather and failed, you can be and should be in control of productivity and by owning and/or using forage equipment which is based on efficiency, comfort, value for money, reliability and durability, and ease of maintenance means you're in the best possible position to produce quality forage.

When it comes to harvesting, preparation is everything. Make sure equipment is well maintained and ready to go to avoid costly breakdowns at critical times. There are a number of different factors to consider when it comes to mowing, tedding, raking and harvesting, so it's important to assess the farm needs, labour availability and handling capacity to maximise efficiencies and silage quality.

Mowing

The growth stage of the crop will determine the type of silage produced. Young leafy grass will be higher in energy and lower in bulk, as the crop matures the digestibility (D Value) will decrease, as the yield increases, a trade-off between yield and D Value is required to suit the livestock being fed. Mowing timing should be dictated by the plant's growth stage and not the calendar.

Grass sugar content is highest in the afternoon after the plant has photosynthesised and energy content will be peaking, when the pasture is free from rain or dew, so this should be the best time to mow.

A conditioner breaks the waxy cuticle on the plant, speeding up water loss during wilting by up to 20%.

The problem is if it rains, as the conditioned leaves will then reabsorb water more quickly; choosing whether to use a conditioner can be difficult.

If a conditioner is used then it's important it's set correctly – too harsh and it will pulp the grass and increase fuel usage – too light and it will be ineffective.

Correct stubble height is also important and should be set to approximately 5cm – if you cut too low it will impede grass regrowth and add little quality to the silage as the base of the plant is low in D Value. Mower blades will also be blunted, and the risk of contamination from soil and stones will increase.

It's important to carry out in-field checks and understand settings as these are vital in producing cost effective quality forage. They don't take long and can have huge benefits. Change mower blades regularly – if they are blunt they will not cut the grass cleanly, dramatically slowing regrowth. Deciding to spread or swath is down to individual circumstances; however this basic rule can help. If the ground is dry, set the mower to full width spread to maximum the surface area of the crop for rapid wilting. If the ground is wet, leave the grass in a swath, allowing the ground to dry out either side before tedding.

Tedding

Tedding will speed up wilting time, and mixes the grass to give a more uniform wilt and therefore more uniform quality, with fewer hot / wet spots in the clamp. The tedder height must be set in the field, with tines 2-4cm above the ground. To check the correct working height, drive forward slowly and check if the tines are scraping the soil or leaving grass behind. Too low and you'll contaminate the silage and increase machinery wear, too high and you'll leave a mat of grass behind. It's also important to match the forward speed of the tractor with the RPM of the PTO shaft – if you need to cover more ground go for a wider spread; don't drive faster as it will affect silage quality.

The diameter of the tedder rotors and the number of tines will play an important role in the quality of the spread; different tedders have different sized rotors. Generally speaking there are 3 rotor diameters, suited to different applications. Large diameters (seven tine arms) are typically suited for silage, where one pass is required tedding out the mower swaths. When sizing a silage tedder each swath should fit between each pair of rotors. The smaller the diameter (five tine arms) the finer the spread and the more consistent the wilt, ideal for tedding hay. However many tedders are required to spread a variety of crops behind a range of mowers; a medium diameter rotor (6 tine arms) will provide the best all round solution.

Raking

Presentation of the swath to the subsequent harvesting machine has a big impact on efficiencies and quality – an even, box-shaped swath for a smooth, consistent flow is required. Row up just before harvest so that the grass quality remains uniform – too long in the swath and the top will wilt more than the bottom producing an inconsistent DM. Correct working height of the rake is important, otherwise you'll either pick up stones and soil, or leave grass on the ground which will rot and damage the subsequent cuts. Ideally a rake with electric height adjustment should be used as the rotor working height can be adjusted on the move to suit varying conditions.

Mowing Tips

- Establish the correct day to mow and consider time of day
- Afternoon is preferable once the grass is free from dew and rain
- Sugars are higher in the pm; a quick wilt will concentrate sugars
- Leave a 5cm minimum stubble height to encourage regrowth
- Conditioners can increase wilting by 20%
- Ensure conditioners are correctly set
- Spread or swath, depends on the ground conditions.

Tedding Tips

- Tedding will continue to speed up the wilting process
- Effective tedding will produce quality forage
- Correct working height essential, avoid soil contamination
- Forward speed and rotor rpm matched to crop conditions, 3 – 5 mph
- If more output is required then awider tedder is needed
- Tedded grass should be even and lump free.

Raking Tips

- Swath presentation impacts on subsequent harvesting
- Even box shaped swaths equal smooth crop flow - increase productivity and consistency of chop
- Swaths should be made immediately before harvesting
- Forward speed and rotor rpm should suit the crop
- Tine working height crucial to ensure quality forage and minimise contamination.



Producing cost effective quality forage can have a positive impact on livestock yields and performance

Again, as with tedding, match the tractor forward speed to the RPM of the PTO shaft; higher dry matter crops will take less moving than wetter crops, so you risk throwing it too far or leaving some behind.

Harvesting

A farmer's choice of harvesting technique depends on what type of silage they require. Many will use a forage harvester or wagon for high quality silage, with lower energy crops being baled for feeding to dry cows. When choosing equipment, ensure there is enough capacity to manage the crop in the clamp at the same time as harvesting, so that every stage of the silage-making process can be undertaken at the correct time. The same is true of using a contractor – ensure they can do what you want, when you want, to achieve the right quality silage. Savings on contractor fees can quickly be lost through reduced quality forage.

1 – Forage harvester. Whether trailed or self-propelled, a forage harvester ensures a uniform chop length and gets the crop into the clamp quickly. Having been chopped, it can also be consolidated quickly. Having a higher capital cost, this option will be chosen to suit the feeding regime.



2 – Forage wagon. Although it doesn't give a precise chop length, a forage wagon is cheaper to run than a harvester. However, the less uniform silage can take longer to buck rake and consolidate in the clamp, although there is an argument that longer chop lengths are good at slowing the cows' digestion process.

3 – Baler. Choices will depend on whether you want bales wrapped or not. Round combi-balers wrap on the move, saving labour, but they are more expensive to buy. Square bales have to be wrapped separately but can be stacked and stored more easily.



BIG X SHOWS ITS METAL



Stephen Horsley with his BiG X 700 in first cut silage

Quality harvesting, increased throughput and significant fuel savings have been enjoyed by contractor Stephen Horsley in his first season with a Krone BiG X 700 forage harvester.

Horsleys of Abbeytown provide an arable and grass contracting service within a 25 mile radius of their Cumbrian base, chopping 3,350ha of grass, 500ha of wholecrop and 400ha of maize.

For 2016 Stephen Horsley purchased the Krone BiG X 700, keeping his old forager as back-up.

"We had a number of Krone foragers on demo and then tried the BiG X 480 prototype, but we eventually decided on a higher powered BiG X to put most of our acreage through."

One feature that really appealed was Krone's 28 knife MaxFlow drum, giving a fine enough chop for wholecrop rye destined as feedstock for an anaerobic digester but also featuring three-bolt attachment for the blades.

"The blades are just so easy to change or adjust, it's a big time saver."

Once in the field, the BiG X 700 really started to shine.

"We have a four rotor rake for grass and you do get lumps in the swath, but the BiG X handles them really well. It also produces a quality chop regardless of the conditions – it is very good in the wet, and while we found that our other forager couldn't chop dry grass short, the forager has no problems, it's really consistent."

The BiG X 700 features Krone's VariStream system which connects the spring-loaded chopping drum floor to the anvil of the counterblade at the front. Clearance between the drum floor and the blade is maintained regardless of movement to compensate for an uneven crop flow, ensuring a consistent chop.

Workrates average 100ha/day, and Mr Horsley has found that using one powerful forager not only saves on labour but also on fuel, with the BiG X using 4.5l/ha less diesel than the previous machine.

Long hours in the cab are a feature of the forage harvest, but Mr Horsley praises the BiG X's 'comfortable, user-friendly, quiet cab'.

"There's also a good auto-lube system so maintenance is minimal which helps at such a busy time. We find the BiG X very easy to operate – you can fine tune chopping to suit changing conditions throughout the day just at the touch of a button."

And when the forage and grain harvest seasons cross over, the workload can be tough on drivers, but Mr Horsley says that the BiG X has certainly eased the burden this year.

Reliability is an important consideration for a contractor and Mr Horsley comments that his forage harvester has performed consistently.

"Any queries were quickly sorted either by Krone's area managers or by our local dealer. We had enjoyed very good back-up with our previous forager and that is particularly important to us - Carrs Billington has done an excellent job."

He comments that he tends to keep a forager for three years and that when the time comes to replace it, Krone will once again be top of the list.

"We have been very impressed with the performance and toughness of this machine – we would say that it is 'built out of metal'!"



The BiG X 700 making light work of whole crop with an X Discdirect cut header

BIG PACK BALER IS THE BUSINESS FOR STRAW ENTERPRISE

Newbridge Straw Products Ltd is the main outlet for the 45,000-50,000 bales Mr Heath and his team make each year. Straw is processed, dust extracted and packed into small bales for the horse bedding market. The majority comes from HG Heath and Sons' own 1000ha but is also purchased in the swath from local farms.

"Oilseed rape straw is the key ingredient in the bedding so we will also advertise locally for straw," comments Mr Heath. "It is becoming more difficult to get straw in some areas as prices are low and farmers are opting to chop and plough in. But on the other side, having your straw baled means you can get on and cultivate ahead of the next crop more quickly, and removing straw provides improved growing conditions for following crops such as rape which are susceptible to slug damage. Another benefit is in removing weed seeds from the field rather than cultivating them in."

Bales are also made on behalf of customers and are stored for sale at the farm near Shipston on Stour, while haylage is another important product.

The family has used its expertise to develop the Heath bale chaser range for high speed collection and transport of big bales, successfully marketed for many years by Big Bale Co (North).

Two sizes of bale are preferred: 4x4ft section Hesstons and 4x3ft section 'mini Hesstons', both 8ft long made by a fleet of six balers, and this year Mr Heath decided to have a demonstration of the Krone BiG Pack 1290 HDP.

"We have always used a different brand, but our local dealer FN Pile and Sons gave a very good demonstration in which we saw how smoothly the Krone baler runs and how straightforward the design is."

He adds that FN Pile and Sons were able to offer a very good price and provide good back up, and trips to the Krone factory for Robert, his brother Chris and cousin Peter to see the parts support and build quality clinched the deal.

"Avoiding downtime is a significant issue for us, and the support has already proved itself – parts ordered one day are at the dealer for 7am the next morning and FN Pile and Sons have bent over backwards to help us," Mr Heath says.

And in its first season the Krone BiG Pack 1290 HDP has performed well.

"The baler has a larger flywheel than most which means that there is no 'surge' and baling is much smoother," he comments. "Krone's use of dog clutches, rather than a slip clutch also protects the baler better and minimises the risk of blockages."

With straw as an important part of the business, reliable, productive balers are essential for Warwickshire farming partnership HG Heath and Sons. A Krone BiG Pack 1290 HDP joined the fleet in 2015 and has been so successful that customers are asking for it by name, and Robert Heath is considering adding a second Krone baler for next year.

Mr Heath points to the use of shaft drive rather than chains for durability and the tandem axles which travel well on rough ground as other pluses.

Krone's Delta controller gives easy control of baling functions for operator Albert Fox, allowing bale length to be adjusted and providing a record of moisture levels.

"It's easy to swap between the different tractors, without too many wires to attach," says Mr Heath.

The baler is mainly pulled by a 360hp MF8690, but can also run on a 200hp tractor, which Mr Heath says is useful at busy periods.

"Reliability is as important as performance as baling is so weather dependent," he comments. "Our customers have praised the bales made by the Krone and have even asked for it by name."

Outputs can be as much as 500 bales a day depending on the crop and on field sizes.

Mr Heath finds the ability to alter density at the press of a button particularly useful: "We aim for a bale weight of 450-500kg for our own use, but most customers prefer 400kg bales. We can also adapt to conditions – unless the straw is top quality, bales can be a little 'waddy' with a tendency to get dusty and overheat if you try and put too much in."

"We may also need to alter density at different times of day – this season we were able to continue baling later into the evening before it became too damp."

Maintenance is minimised by the AutoLube system, but Mr Heath is careful to blow the baler down at least once a day to avoid transferring black-grass seeds between farms.

Balers are generally kept in the fleet for 4-5 years with avoiding downtime and breakdowns considered more important than resale value.

And a second Krone baler may join the fleet for next season. "One of the reasons we chose the high density baler was to guarantee a stronger machine that would stand up to the workload. But the build quality of the Krone is so good that we feel a standard baler would do the job on lighter bales, and it is certainly under consideration for 2016."



Mr Heath



The BiG pack 1290 HDP comfortably produces 500 bales per day, with a target weight of 450 - 550 kg, depending on field size and conditions



BIG X FORAGE HARVESTER BOOSTS PERFORMANCE

Richard Anthony and his family have built a successful business that grows and supplies around 20,000 tonnes of high quality forage to customers each year. From Tythegston Farm near Bridgend, Glamorgan, R and L Anthony has carved out a niche business growing and supplying high quality forage to customers.

And what started 18 years ago with just 108 acres and the chance of some contract work has blossomed into a 3,000-acre operation that produces 20,000 tonnes of forage annually.

The business, run by Mr Anthony, wife Lyn and son David, has a carefully planned rotation geared towards making the most of forage production. With half the acreage producing combinable crops, the remainder comprises grass, maize and forage rye.

When it comes to productivity, the Anthonys are effective at making the most of their resources. As soon as enough wheat has been harvested, 750-acres of forage rye is planted, in fields that are allocated to maize.

Rye is then harvested and clamped in early spring ahead of maize drilling. This highly efficient approach avoids leaving stubbles to over-winter. Additional benefits include effective blackgrass control, and the farm benefits from producing three crops in two years.

Crop diversity also spreads the workload, and with a small amount of contract work, it becomes easier to justify heavy investment in high output machinery.

With the emphasis firmly on quality, all forage is tested for dry matter and digestibility, so livestock customers and AD operators know the quality they are getting.

Equipment for such an operation is considerable. Forage harvesting duties are the domain of a Krone BiG X 700 with grass and maize headers to maximise productivity. A fleet of five 18-tonne capacity Dooley trailers supports the forager, and boosts transport efficiency.

With a 12-row EasyCollect maize header, forager output is a consistent 85 acres/day. And depending on the length of haul - clamps and grain stores are

strategically located at nearby St Brides Major and Llampha, in addition to Tythegston - their five trailers are often supported by local owner-operators.

When it comes to grass, the Anthonys take multiple cuts from a 580-acre crop. Mowing is the domain of a Krone EasyCut B 870 CV butterfly mo-co combination on one of the farm's New Holland T7 tractors.

Swaths are now pulled together using a Krone four-rotor Swadro 1400 rake, to make the most of forager performance.

"We had previously been using a twin-rotor rake to pull 9m of grass into one swath," explains Mr Anthony. "What we found was our forward speed was too high, and if the metal detector went off, everything was travelling too quickly to stop easily."

"The four-rotor rake lets us pull 14m of grass into one swath, which has reduced our forward speed and gives all the kit a much easier time," he says. "And the heavier rows mean much more chopping output too."

In grass, Mr Anthony says the BiG X 700 can see off 200-acres/day. Supplied and supported by Pallisers, the forager has just completed its third maize season, and has completed two seasons in grass. It is the first self-propelled owned by the firm, following several seasons of using contractors and latterly, hiring in a forager, on a seasonal basis.

"We didn't have the acreage to justify buying our own forager in the early days, but as the business has grown, the numbers started to stack up," he says. "And when you're chasing the best forage quality, you really need to be in control of your own destiny, rather than waiting for that phone call to say we can't get to you until the end of the week."

"We have had lots of experience with different types of forager, but having tried a BiG X on demo, there is little to compare to it. It really is a fantastic machine. And one of the biggest influences on our buying decision was chop quality - we have a 28-blade cylinder, and with six feed rollers, we can give customers a very accurate result with chop length. We can also give them exactly the chop length they want."

"Typically, we can chop from 25mm down to 10mm - the shorter chop is very important for our AD customers," he says. "Too much leaf can float to the surface of the digester and restrict gas production."

"And the second factor is fuel efficiency," he adds. "Over a season, the BiG X has slashed 25 per cent off the forager fuel bill, which is a huge saving for us. And we're getting a slightly higher work rate too."

That work rate is managed efficiently by putting adequate resources not only on filling the clamp, but also into clamp construction.

With the benefit of space from recently built clamps, it means a telehandler with duals on the front axle, and two tractors can often be found clamping and rolling.

"We fill all our clamps progressively in layers, and in maize, using a blade helps to level the crop as it gets rolled in," says Mr Anthony. "Push-off buck rakes and forks are the only option in grass though."

"And building our clamps this way - rather than in wedges - means we can supply customers with consistent forage quality, all the way through a clamp."

DIFFICULT DECISIONS TAKEN NOW TO BENEFIT *NEXT GENERATION*



All swadro rakes feature a good headland clearance

The slow decline of the agricultural industry in the north east of Scotland led Bill Beaton and his family to re-evaluate their successful contracting business and start a farming business of their own.

The business, situated near Elgin, covers a wide area as they are surrounded on one side by mountains and heather and so they can travel up to 70 miles to do a particular job.

"This was the only way out, we are still losing customers at the rate of around five per year as farms are integrated and prices remain stubbornly low," says Mr Beaton.

The area has also just been delivered another blow, which is the one remaining creamery in the area has been given notice to close by Mullers. The reaction to this by local dairy farmers will certainly have a knock on effect to the investment the Beaton's make to their own business over the next few months.

As farms have slowly gone out of business or combined for more efficiency Mr Beaton realised he was losing customers. With a young family looking to help out, he and his wife, Sarah, and father Bill, decided to buy a small 60 acre farm and start a beef suckler herd. However, things started to go wrong when they applied to the Rural Payments Agency (RPA) for their Single Farm Payment (SFP). They were told that they did not qualify for the payment.

"We realised then that we had to enlarge the farm to make a go of it and fortunately one of the local estates let us rent a large area of land. Since then we have rented more land and even taken some on a management partnership. Our problems with the RPA are now sorted out, although timeliness of payment is still a problem," says Mr Beaton.

They now have a growing farm which consists of around 600 acres of hill land and 450 acres of cultivable land which supports 70 suckler cows, 220 fattening animals and 150 ewes. The business is still centred on contracting however, as calving and lambing periods are deliberately timed to coincide with slack times and school holidays.

The Beatons supply everything that farmers would need in the varied agricultural climate of the north east of Scotland.

"I started the business in 1991 after I was made redundant from one of the local estates. Despite some local scepticism I bought a new Deutz Fahr tractor, trailer and a plough and then a drill in the following spring. After two years the business was still growing and I was able to employ my father when he was made redundant and now we employ five full time staff and several seasonal staff when there is a need," says Mr Beaton.

"We now provide everything for farmers from plough to harvest, as well as foraging and other grassland operations, lime spreading and destoning potato land, plus a whole range of snow clearance services in the winter."

Speed, efficiency and good quality silage are the key elements that go towards the silage making branch of the Beaton family contracting business. To make sure this happens he relies on two Krone butterfly mowing kits as well as two Krone rakes and a Krone tedder.

"We started buying Krone machinery in 2007 and then in 2009 we purchased our first set of EC 32 CV & EC 9140 CV triple mowers. Sitting round a table with the guys from Krone and the dealers solved a few early teething problems such as getting the geometry of the mowers right in relation to tractor.

"It was good to know that when we came to purchase another set of mowers the advice had been taken on board in the newer models and we had no problems whatsoever. The newer mowers also have more improved break back bars and shear bolts, which make mowing easier," points out Mr Beaton.

Fuel efficiency and speed is also a key part of any contractors business, he adds, and when using a set of Krone triple mowers with a John Deere 7310 he is able to get this down to around 3litres/acre and on a good day cutting up to 180 acres, mowing up to 30 acres/hour.

"Our mowers are fitted with spreaders as I firmly believe that making good quality silage isn't possible without spreading the crop. Consequently we have two Krone rakes, a 9m and a 10m to row the crop up in front of the harvesters. We also have a 9m tedder that allows us to spread the crop again if the weather conditions are catchy."

There is still a lot of hay made in this area which means that a tedder is an essential part of the process explains Mr Beaton. Catchy weather conditions also mean he has to be very flexible as farmers can change their mind and decide to make silage instead.

He believes that one of the main problems facing the business over the next few years will be climate change. "The weather seems to be getting worse and the windows available to do the work, which were already small in this part of the world, are getting shorter. Consequently we cannot hold back on investment on newer and more efficient machinery.

"However this has to be tempered by the doubts surrounding the dairy industry in the region, and low commodity prices in the other sectors. There must be a concerted effort to encourage people to eat locally produced food. We feel that we have taken the right steps to ensure the business carries on into the future. Having three children who are already showing a great interest in the farm and the contracting business is a great incentive to make sure we get it right."

EC 9140 Cv mowers spreading the swath full width whilst cutting grass



BUILD QUALITY AND BACK UP HELPS BALER PURCHASE DECISION

When Morpeth beef and sheep farmer Andrew Scott looked to replace his Krone round baler two years ago, he didn't have to look too far for a replacement. His current baler was the sixth Krone baler he had bought over the previous 20 years, so his seventh was a Comprima F 125 XC fixed chamber baler, specifically designed for producing 1.25m round silage bales.



Mr Scott's Comprima F125 XC averages 60 bales per hour in silage, with over 100 bales per hour achievable

Mr Scott would normally be thinking about changing his baler after two seasons in readiness for the coming season but at the moment he sees no reason to do so as it was running so well at the end of last season. The baler is usually powered by a Massey Ferguson 6480 and can average around 60 bales an hour, but on one occasion last summer achieved an output of 100 bales in an hour.

Mr Scott farms 350 acres of grassland farm which supports a suckler herd of 45 stabiliser cows with followers sold as store cattle and 500 Mule, Suffolk Cross and Texel Cross ewes. All the machinery on the farm is purchased with the sole intention of providing good quality forage for his livestock.

"With just farming beef and sheep there is not much need for machinery on the farm, but I do need good and reliable silage making equipment," he says. "The only way I can afford this equipment is to provide contract baling services for several neighbours. I now own a Krone mower, tedder and baler, and bale around 7-8000 bales per year."

Mr Scott bought his first Krone around 20 years ago and six machines later he has seen little reason to change. The support from Krone and equally as important, dealers Carrs Billington, is second to none and – no problem is too big to solve.

"Quite often problem solving can be done over the phone without a callout. The machines also arrive on the farm ready for work. There is no need for any service engineer to come out and set it up – you just load the net wrap and you're ready to go."

Andrew Scott



His new Comprima baler is equipped with a rotor cutter feed which not only cuts and feeds the crop into the baler, it also takes care of the pre-compression of the crop. The Krone X-Cut rotor cutters feature three rows of welded tines in chevron formation, which provide for continuous cuts and help spread the material uniformly across the entire chamber width.

The baler is fitted with the camless EasyFlow pick-up, which means that the galvanised scrapers are specifically designed to ensure a continuous flow of crop as the tines retract. This means that the baler can gather the crop cleanly at a higher speed.

It also has the NovoGrip system which was developed by Krone to combine the bale feed strengths of chain and slat elevators with the quiet running of belt systems. An endless elevator has slats mounted on rubber belts which ensure high-density well shaped bales.

"The other advantage of this system is that it is much quieter than any other baler I've known," says Mr Scott.



**QUALITY FORAGE
IS AT THE HEART
OF EVERYTHING WE DO**

