Harvestimes

Spring 2011

THE JOURNAL FOR AGRICULTURAL PROFESSIONALS

CLAAS

www.claas.co.uk

Product news

News

Finance

Legal

Renewable Energy Special

CLAAS in the field

CLAAS Kids

GRASSLAND & MUCK 2011
18 - 19 MAY
PARTNERED WITH YARA UK | STONELEIGH PARK, WARWICKSHIRE

Trio of new products at Grassland

The CLAAS plot at this year's Grassland promises to be one of the highlights of the event, giving CLAAS the opportunity to demonstrate its full range of green harvest machinery, from the smallest mower up to the twin-engined, 830hp JAGUAR 980.

Three new additions to the range will be on display:

- The DISCO 3100FC front mower with ACTIVE FLOAT
- The LINER 3500 rake
- The VARIANT PRO variable chamber round baler

New DISCO front mower

With 27 models ranging in working width from 2.1m up to 9.1m, the CLAAS DISCO range of disc mowers and mower conditioners is one of the most extensive ranges on the market.

To ensure quality forage and an evenness of cut, it is important that the mower accurately follows uneven contours and does not scalp the ground. To ensure this, the mounted DISCO CONTOUR range incorporates the easy to use ACTIVE FLOAT hydropneumatic suspension system, that allows the mower's ground pressure to be quickly and easily set-up and adjusted from the cab. As ground and crop conditions change, so the ground pressure and suspension 'ride' can be adjusted to maintain a clean cut.

To compliment the rear-mounted models, new for 2011 is a front-mounted mower conditioner version, the DISCO 3100FC with ACTIVE FLOAT. In place of the conventional spring mounted suspension system, the DISCO 3100FC incorporates two single-acting rams which are connected to four pressure accumulators.

The ACTIVE FLOAT system is designed so that the weight of the mower is transferred to the tractor, so reducing frictional resistance, which aside from helping improve evenness of cut and reducing wear, will also cut fuel consumption by up to 20% depending on conditions.

As on all DISCO mowers, the new DISCO 3100FC uses the P-CUT cutterbar, which is designed to achieve an extremely even and clean cut, regardless of working width, whilst also offering high reliability and efficient power use. The cutting discs themselves are set lower in the cutterbar for a cleaner cut and improved crop flow, and are mounted in a high strength sealed double tapered roller bearing assembly.

Each cutting disc is protected by the unique SAFETY LINK drive protection system, where defined shear points prevent gear and cutterbar damage should an object be hit. As standard the cutting discs use the CLAAS QKC (Quick Knife Change) system, in which the knives are held in place using a spring leaf system to ensure that damaged or worn blades can be quickly and simply replaced without using tools.

New LINER 3500

Creating an even, lump-free swath is essential if optimum forage harvester and baler outputs are to be maintained.

Designed to meet the output demands of larger JAGUAR foragers, the new four-rotor LINER 3500 rake has a working width of up to 12.5 metres and replaces the very popular LINER 3000 which set the standard for high capacity swathing.

Like its predecessor, the new LINER 3500 has four Cardan mounted rotors that lift cleanly out of the swath. To achieve a clean finish, each rotor carries 12 PROFIX tine arms compared to 11 on the LINER 3000, each of which are fitted with four double tines. For maximum reliability these are carried on twin bearings in a sealed, permanently lubricated rotor housing.

The front pair of rotors are infinitely hydraulically adjustable to give working widths from as little as 9.90m when working in heavy crops, up to the full 12.5 metres. Likewise the rear rotors are adjustable to give a choice of four swath widths from 1.40m up to 2.30m.

The LINER 3500 features the Power Beyond load-sensing hydraulic system with state-of-the-art valves. In addition to push-button lifting and lowering of the rotors, as standard each rotor can be individually lifted if required, plus there is the option of electro-hydraulic rotor height adjustment.

The LINER 3500 is controlled using the CLAAS Standard Terminal, but the CLAAS ISOBUS compatible COMMUNICATOR terminal is also available as an option.

VARIANT PRO balers

CLAAS VARIANT variable chamber round balers are renowned for their high output and the density of the bales that they produce, regardless of bale width. For 2011, CLAAS has introduced a new VARIANT PRO version of each of the four VARIANT models, which has the potential to achieve greater output and efficiency.

All feature a 2.1m wide pick-up, four endless high-tensile belts in the bale chamber running at 2.7m/second, a hydraulically operated bale density pressure system and variable core density.

As with existing models, on the VARIANT 360RF PRO and 365RC PRO bale diameter can be varied from 0.9m to 1.55m in diameter, whilst the VARIANT 380RF PRO and 385RC PRO creates bales up to 1.75m in diameter.

All models feature a four star double tine HD feed rotor with heavy duty drive system. The VARIANT 365/385 PRO machines feature the 14-knife ROTO CUT bale chopping to accurately chop grass silage for greater density and bale quality.

A particular feature of the new VARIANT PRO models is a hydraulically operated floor in the ROTO FEED or ROTO CUT chamber immediately behind the pick-up, which enables blockages to be quickly and simply cleared.

This gives the operator the confidence to push the baler to its maximum capacity, so improving efficiency and baling output. As material flows through the ROTO FEED or ROTO CUT chamber, sensors will automatically detect a potential blockage and trigger both a trip clutch to stop the drive and an alarm to alert the operator.

To clear the blockage, the operator simply hydraulically lowers the floor, then re-engages the drive so that the blockage can pass safely through to the main bale chamber, prior to closing the floor again and re-commencing baling.

All four PRO models come with the CLAAS Medium Terminal which enables functions such as bale and core density pressure control, total and daily bale counters and bale size adjustment to all be quickly and easily controlled from the cab. As an alternative, the CLAAS COMMUNICATOR terminal is available which allows a wider range of functions to be controlled or automated.

AXION 900 to make Agritechnica debut

Agritechnica, the world's largest agricultural machinery show, promises to be bigger and better than ever, with over 2,300 exhibitors spread over 18 exhibition halls.

CLAAS, as in past years, will have a major presence and one of the highlights of the show is bound to be the new AXION 900 tractor range which was announced at SIMA in February and has been undergoing extensive pre-production testing since early 2010.

Four models will be available, ranging in power outputs from 280 to 400hp. The AXION 900 will be powered by an FPT 24-valve, 8.7 litre Cursor 9 engine which, in order to meet Tier 4i emissions regulations, incorporates integrated SCR (Ad Blue) technology.

Drive to the axles is through a ZF Eccom CVT transmission operated using the latest CMATIC control system and will be available in 40kph and 50kph variants. To efficiently transfer this power to the ground, the AXION 900 will be available with front and rear tyres of up to 1.7m and 2.15m diameter respectively.

The AXION has a long wheelbase of 3.15m and in common with all other CLAAS tractors is designed so that weight is evenly spread between the front and rear axles.

To provide a comfortable work environment over the long hours that tractors of this size typically work at peak periods, the AXION 900 features a completely new four-pillar, fully suspended cab that incorporates a large glazed area for optimum visibility.

In the cab, all the main operational functions will be controlled using just three fingers via the new CMOTION control unit which fits in the hand. Integrated into the armrest will be a full colour CEBIS terminal giving direct access to a wide range of operational and management functions.

News

2010 CLAAS Scholar

Miles Metcalf accepts congratulations from Beate Kral from Human Resources Management Development at CLAAS KGaA mbH in Germany.

Harper Adams student Miles Metcalfe has been awarded the 2010 Scholarship for Agricultural Engineering. Miles, who is from Northallerton in North Yorkshire, is currently studying MEng (Hons) Agricultural Engineering at the University College based in Shropshire.

As this year's winner of the coveted CLAAS Scholarship, Miles will have his fees for the second and fourth years of his studies covered, and in year three will complete a one-year sandwich placement with CLAAS, both in England and Germany.

Students Stephen McKean and Tom Fraser narrowly missed out on the scholarship, but so impressed the panel of judges that they have also been invited to spend their placement years with CLAAS.

Miles said: "I am really pleased and very happy to join CLAAS. I'm very much looking forward to the placement. I'm glad that some of it is in the UK and some of it is overseas as I will be able to see how engineering is done elsewhere.

"The financial aspect of the scholarship will really help with my studies here at Harper Adams. I also hope to do well in my degree and if the placement goes well hopefully stay on with CLAAS. In my career I really want to focus on prototyping and field testing."

According to Beate Kral from Human Resources Management Development at CLAAS: "We chose Miles because of his personality, his motivation for engineering and for CLAAS and his project work showed a good grasp of engineering. We are looking forward to having him during his placement year."

The CLAAS Scholarship was launched in 2005 at the personal instigation of Helmut Claas, and is open to one second year student per year who is studying on either the MEng/BEng (Hons) or BSc (Hons) Agricultural Engineering, or the BSc (Hons) Agricultural Engineering Marketing and Management courses at Harper Adams.

75 years of combines

This year, CLAAS will be celebrating the 75th anniversary of the development of the first combine harvester designed specifically for European conditions.

A number of American built, tractor drawn combine harvesters were trialled in Europe during the 1920's. However, designed for the thinner crops of the American Mid-West, it was quickly apparent that these machines could not cope with European crops and conditions.

Spurred on by these early trials, August Claas set about designing a machine that would be suitable for Europe, and by the early 1930's had developed a prototype built around a Lanz Bulldog tractor and used a front-mounted cutterbar.

However, his combine was ahead of its time and it was not until 1936 when August Claas unveiled a new trailed machine, the MDB, capable of harvesting 30 tonnes of wheat a day, that he could finally commence production and by 1942 over 1,400 had been manufactured.

Following the end of World War II, production started in 1946 of a new trailed harvester, the 'Super', which went on to be sold around the world and only ceased production in 1972, by which time more than 65,000 had been sold.

This was followed in 1953 by the launch of the first self-propelled combine harvester, the 'Hercules' which was the start of a succession of highly successful combines which, 75 years on from the early MDB, has led to CLAAS being the undisputed market leader in Europe, with one-in-three combines sold coming from Harsewinkel.

Let us know your CLAAS combine experiences

As part of the 75th anniversary, CLAAS is interested in hearing about your experiences and to see any photos or film that you may have.

You can see a history of CLAAS combines over the past 75 years and read about other users' experiences on a special website we have set up, which can be accessed either via the main CLAAS website or at www.mycombine.claas.com

A LEXION 600 dwarfs a 1961 CLAAS SF
(Photo: Mid Suffolk Agri Photos www.midsuffolkagriphotos.com)

TERRA TRAC Silver Medal

The new CLAAS Generation III TERRA TRAC system was awarded a silver medal at this year's SIMA show in Paris.

The award recognised the TERRA TRAC's outstanding overall design, which drastically reduces the force of impact through its new hydropneumatic suspension. Hydraulic cylinders adjust the individual drive wheels, ground wheels and support rollers of the TERRA TRAC, resulting in automatic levelling and improved stability. Consequently operator comfort is drastically improved in the cab by the separate suspension.

The Generation III TERRA TRAC system is available for the new LEXION 770 and also for the 750, for which there is also a 40kph version, making this the fastest combine on the road, so reducing the time required to move between fields and hence increasing productivity.

In short, the all-new track system offers the following benefits: increased soil protection (66% improvement on a wheeled machine), improved traction on wet ground or when working on sloped terrain, stable and smooth cutterbar operation even when operating the widest cutterbars available, increased operator comfort, improved stability on slopes, less drive resistance, less slippage, and therefore reduced fuel consumption.

Investing for the future

The past few months have seen a number of CLAAS dealerships improving, or in some cases completely replacing, their dealer premises. This is a clear reflection of the ongoing commitment of these CLAAS dealerships to their future business and the necessity to provide a modern work environment for their employees that is suited to future needs, from which they can provide the high level of service that CLAAS customers expect.

In Yorkshire, **Seward** has completely redeveloped its branch at Sinderby, alongside the A1 near Thirsk, constructing an impressive new purpose-built facility that includes a large showroom area, extensive parts facility, function/training room and a modern, spacious workshop area.

However this is just part of an ongoing investment by Seward who are currently refurbishing their Wilberfoss branch, and this Spring will be opening a new branch at Catfoss to replace Hull Bridge that was closed last year.

In the midlands, **Mill Engineers** is currently constructing a completely new branch at Harvington near Evesham which will open later this Spring and is right alongside the main A46, so making it easy to access the northern part of Mill's trading area. This replaces its branch at Shipston-on-Stour which, due to its location, was increasingly difficult to access with large machinery.

In Hampshire, **Southern Harvesters** has also recently redeveloped its branch near Micheldever in order to provide enlarged, modern facilities capable of accommodating the growing demands of the business, including extra workshop space capable of handling the largest CLAAS combines.

A common feature of all these new premises is the inclusion of the latest IT technology that will provide enhanced customer service. This includes direct links to the UK CLAAS parts holdings at both Saxham and Newbridge near Edinburgh, plus an additional link into the CLAAS Worldwide parts distribution centre in Germany. This ensures that in the event of the dealer not holding the part themselves, it can be sourced overnight from either the UK or German parts centres.

The new Seward depot at Sinderby

Work in progress at Mill Engineers Harvington

JAGUAR's top of the chops

Last autumn, a field at Oakland, New York saw the coming together of four self-propelled forager harvesters for a 'chop off'. The aim was simple – to find which machine produced the best quality maize silage most efficiently and economically.

With a crowd of 200 spectators and the results being compiled and published by Cornell University, the machines were set-up to chop the maize to the same chop length and kernel processing.

Each machine did three timed runs down the field, with the trailers then weighed to determine both the tons/hour and tons/horsepower. Samples were also taken from each machine to assess forage quality.

The results were clear, with the JAGUAR 980 proving to be 13% more efficient than the competition, achieving up to 57% fewer uncracked kernels and 100% fewer pieces of unbroken cob.

Model	Hp	Average tons/hour/horsepower
John Deere 7950	800	0.42
New Holland 9090	824	0.40
CLAAS JAGUAR 980	**860**	**0.46**
Krone 1000	1020	0.41

The key to the success of the JAGUAR is down to its tried and tested design:

- Transverse mounted engine with direct drive via the Power band to the feed rollers, chopping cylinder and accelerator. This keeps power loss to a minimum and avoids the need with in-line engines for a power sapping 90 degree drive box.
- A smooth flow of material through the forager, from the chopping cylinder, directly to the corn cracker and out through the spout via the accelerator. Having an unimpeded flow of material without any angles allows each component to comfortably handle large quantities of material.
- Efficient chopping and cracking. The knife angle is such that the optimum cut is achieved using the least power. Travelling at 89mph, material is quickly transferred to the corn cracker, which is driven by a belt directly off the accelerator shaft, so that it is perfectly integrated into the main drive system.
- The variable accelerator means that the optimum blow can be achieved according to the crop and chop length, so reducing wear and fuel usage.

Dealers get on their bikes for charity

On April 22nd, a team of 12 cyclists donned Lycra, got on their bikes and set-off from John O'Groats to cycle to Land's End (JOGLE) in order to raise money for Cancer Research UK and the Air Ambulance service.

Eleven of the team are employees of CLAAS dealers **Mill Engineers** and **Vaughan Agri** and joining them is Simon Viner, who works for Mill customer R G Spackman.

The aim is to complete the challenge in 10 days, which will require them to cover around 100 miles a day, and supporting them will be colleagues from the companies' five branches, which cover an area from Birmingham to the Dorset coast.

They are aiming to raise in excess of £20,000 for two main causes – Cancer Research UK and the five Air Ambulance services that cover Mill and Vaughan's trading area. In addition many of the cyclists are also raising monies for their own individual causes.

"As agricultural machinery dealers we recognise the invaluable service that the air ambulance provides for farmers and those who live and work in rural areas. Also Cancer Research UK is a cause that is close to everybody's hearts as many of us know people who have been affected in one way or another by this dreadful disease," explains General Manager Simon Manasseh.

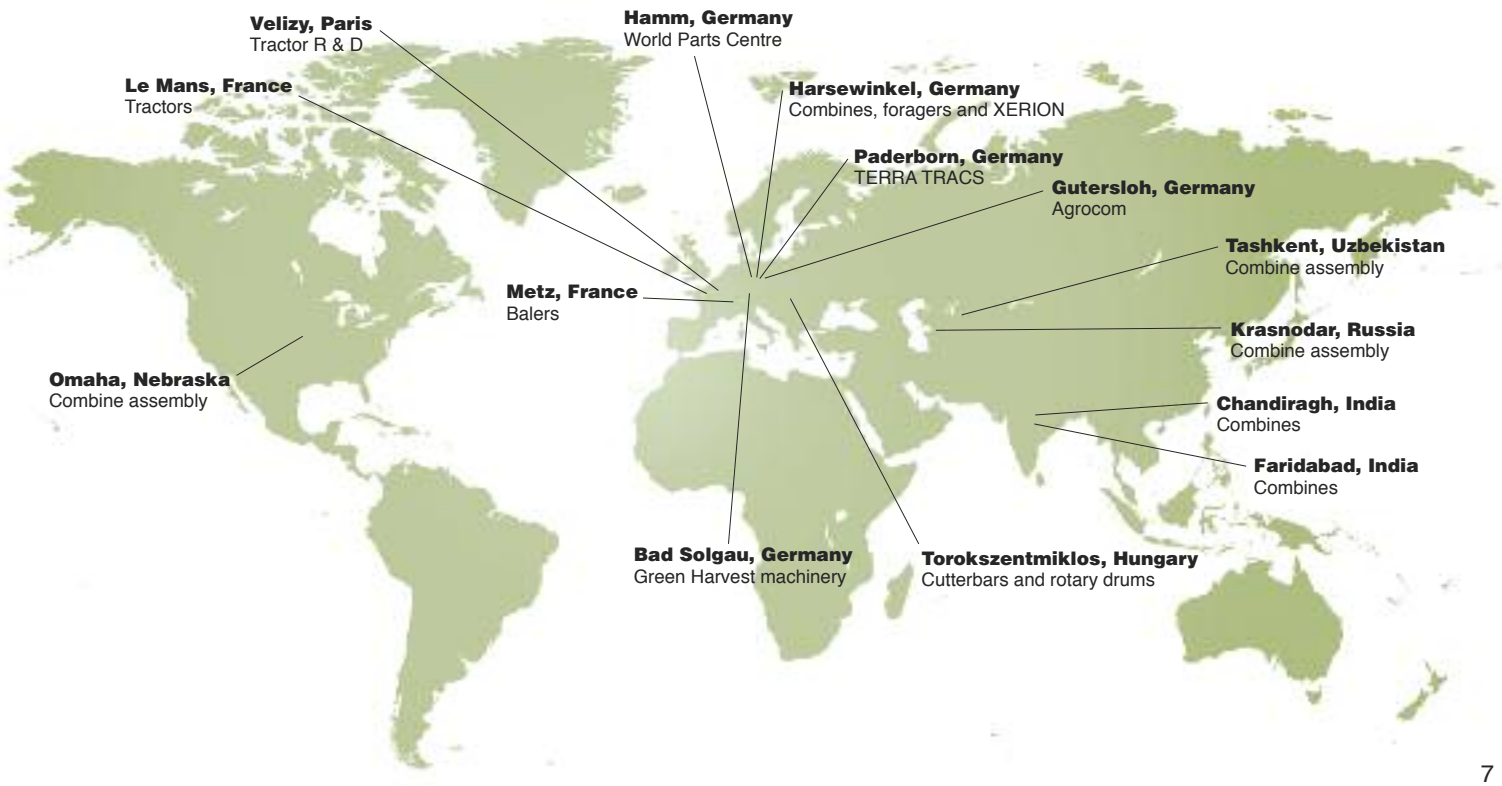
The idea of doing the charity bike ride was the brainchild of Nick Evans and Steve Blackwell who both work for Mill Engineers at Bibury. Steve also has the advantage of knowing what's ahead of him, having completed the challenge once already.

Donations to either cause can be made through the Western Harvesters page at www.justgiving.com or cheques made out to Western Harvesters can be sent to: Vaughan Agri, Frome Agricultural Park, Standerwick, Frome, Somerset BA11 2PL with your chosen charity marked on the back.

The JOGLE Dozen. From left to right are: Tweka Yeatman, Stan Wyatt, Martin Hume, Simon Viner, Steve McCahill, Richard Charman, George Dyke, Richard Hutchinson, Nick Evans, Allistair Tustin, Steve Blackwell, Helen Jefferies (Cancer Research UK), James Stow, John Wood (Paramedic Great Western Air Ambulance) and Paul Weir (Chief Executive Great Western Air Ambulance). Missing from the photo is Andy Cubley.

CLAAS FACTS – did you know?

Whilst Harsewinkel is synonymous with CLAAS and home of the CLAAS Group, it is actually one of 14 agricultural machinery manufacturing and assembly plants operated by CLAAS around the world.



FARMERS WEEKLY AWARDS

The Farm Manager of the Year award is sponsored by CLAAS UK.

To either enter the Farmers Weekly Awards yourself or to nominate someone for the 'Farm Manager of the Year' or any of the other 14 awards, please go to the Awards page on the Farmers Weekly website at www.fwi.co.uk.

Farm Manager of the Year - Alastair Brooks

In the four years that he has been farm manager for Waddesdon Estate, Alastair Brooks has transformed the farming business.

When appointed, Alastair's remit was to review all enterprises and implement what was to be a complete root and branch change in farming policy, following the decision by Lord Rothschild to take back in hand from a management company the 1800ha Estate near Aylesbury in Buckinghamshire.

Alastair took on a traditionally mixed farming estate with three dairy herds totalling 600 cows, a flock of 500 ewes in organic conversion and a wide range of crops and numerous varieties, with insufficient storage capacity to handle everything.

Four years on, the cows have all gone and the Estate has been transformed. Arable cropping now extends to 1520ha, two thirds of which is down to milling wheat in rotation with break crops. The remainder is grassland on part of which is run a 130-cow Simmental suckler herd with progeny sold as strong stores at eight months, plus 850 bought-in ewe lambs that are run-on and sold privately for breeding.

In addition the aging machinery fleet has been rationalised and renewed, and new grain storage buildings erected.

"In my first year we grew 6,500 tonnes of wheat, every tonne of which had to be moved seven times, which was time consuming and costly. The new storage buildings have heated air floors and stirrers and grain is now only moved twice. Also having sufficient storage for everything we grow gives me control over the marketing of the crop."

Everything is harvested using a LEXION 600TT which replaced two 12-year old machines which between them averaged about 42 tonnes/hour. The LEXION, which has a 10.5m cutterbar, has consistently averaged 70-72 tonnes/hour and over the course of last harvest cut 1700ha, including some contract work.

"We aim is to use the biggest machines possible and utilise technology to enable the operator to get the most from that machine," explains Alastair. "Because we don't have a cleaner, having BASELINE steering on the combine gives the operator time to concentrate on the settings to get the best possible milling sample, and it's also ideal at night and working with the cruise control (CRUISE PILOT) ensures the combine is working at optimum efficiency.

"The service and support I get from **Mill Engineers**, and from Jimmy Oldroyde especially, is fantastic. I started as assistant manager at Temple Farming near Marlborough at the same time as he started at Mill and have had an ongoing relationship since then; he is extremely good at what he does. Service is 50% of any machinery deal and he is the reason I bought the LEXION."

In winning the 'Farm Manager of the Year' award, Alastair is also quick to credit his team of six. "I could not have achieved what we have done without them," he says. "It's a team effort and they play an important part. It's a two-way relationship, we hold regular meetings at which they are free to give their opinions, which I respect, and I also make sure that they have an input and are involved in any new machinery decisions."

Looking to the future and the role that well trained staff play, Alastair is also keen to set-up an apprenticeship scheme, taking a college leaver on for a fixed period, during which time they will be mentored and trained. At the end of the fixed period Alastair will then assist in finding them a permanent job.

Alastair admits that he was extremely reluctant when he found that he had been put forward for the award, and took some persuasion to enter. However, having done it he would be the first to recommend anyone to enter.

"None of us like to do things over which we have no control and I was convinced I would not win, so was 'gobsmacked' when my name was announced. However I am extremely proud to have won and it is definitely a career highlight, but just as importantly it's an indirect thank-you to those have helped me along the way. I would thoroughly recommend managers to enter; it really encourages you to look right into the business and made me realise I had a bit more knowledge than I gave myself credit for."

Congratulations to the Runners-up:
Jake Freestone of Overbury Farms in Gloucestershire and Andrew Hughes of Trinley Estate in Hampshire.

Congratulations also to the other category winners:
John Hoskin (Farmer of the Year & Beef Farmer of the Year)
John Goodchild (Arable Farmer of the Year)
Harry & Lynn Wilson (Farm Contractor of the Year)
Brian & Patrick Barker (Countryside Farmer of the Year)
Neil Baker (Dairy Farmer of the Year)
David & Jayne Newman (Diversification Farmer of the Year)
John Adams (Farm Worker of the Year)
Stephen Temple (Green Energy Farmer of the Year)
Mark Burnell (Livestock Advisor of the Year)
Peter & Hilary Cochran (Local Food Farmer of the Year)
Andrew McCrea (Pig Farmer of the Year)
Elwyn & Gareth Griffiths (Poultry Farmer of the Year)
William & Carole Ingram (Sheep Farmer of the Year)
Andrew Rees (Young Farmer of the Year)
Adam Henson (Farming Champion of the Year).

COMBINE WORLD rises to TOP GEAR challenge

Combine World dealers pride themselves on being able to find the ideal combine for a customer's needs and budget. But it's not every day that you get a phone call from the BBC's Top Gear programme saying they are looking for a combine to convert into a snow plough!

As viewers of the show on February 20th will have seen, the challenge was for Jeremy, Richard and James to come up with an idea for clearing the roads of snow and overcome the chaos caused by last year's wintery conditions.

Thinking of machines that are readily available during the winter months, they naturally came up with the idea of a combine harvester – hence the SNOWBINE was born!

Having approached CLAAS about the engineering feasibility of this plan and following considerable discussion between CLAAS UK and the Top Gear engineering team, the first challenge was to find a suitable combine.

However, Combine World rose to the challenge and through **Mill Engineers** found Top Gear a DOMINATOR 108S. As with all combines sold by Combine World, the DOMINATOR was thoroughly assessed to ensure that it was mechanically sound, which was just as well bearing in mind what Top Gear had in mind for it, and the extreme conditions in which it would be working.

As viewers saw, the 23-year old DOMINATOR 108S took everything in its stride and it didn't miss a beat, proving to be the star of the show, which has a UK audience of 8.5 million and worldwide is seen by 330 million in 110 countries.

BBC

Jeremy Clarkson: "I'm sat in a Ford Sierra Cosworth seat with a flame thrower – it's not possible to be happier!"

As you would expect, just fitting a big V-Plough on the front was not enough and other adaptations included a road grit dispenser discharging through the grain chute. To keep Clarkson amused, they even added a flame-thrower on the back to melt ice.

Having built the SNOWBINE, the next problem was ironically a distinct lack of snow just at the time of testing this new invention in the UK – so the team together with the DOMINATOR travelled to the Norwegian ski resort of Beitostølen to give it a thorough test, with remarkably successful results!

The first task was to clear a landing strip on the ice-covered Lake Øyangen. Having completed this task the Snowbine was then put to work clearing a 10km stretch of road to an isolated hamlet which again, unlike many Top Gear challenges, was completed without any major hitches or breakdowns, much to the satisfaction of the three presenters.

"For once in our lives on this programme, we have actually done what we set out to do. We have been ambitious and brilliant – and it's all down to the DOMINATOR," concluded Jeremy.

BBC

Front Row (from left to right)
James Knatchbull (Vaughan Frome), James Dominick (Southern Sussex), David Moore (Corfields Docklow), Ross Gill (Hamblys Launceston), Wayne Farmer (Vaughan Dorchester), Peter Barton (Southern Kent),

New Master Mechanics

Congratulations to the latest service technicians to achieve Master Mechanic status, which is the equivalent of LTA3, who received their certificates whilst visiting the CLAAS headquarters at Harsewinkel in early December.

To achieve Master Mechanic status, the technician undergoes training to become a specialist in a specific CLAAS product, and is ultimately assessed to ensure that they have reached the skill level required to be able to confidently conduct service and repair work in their specialist area.

Back row (from left to right)
Ivan Green (Marsh Brigg), John Simpson (Marsh Sleaford), Chris Benjamin (Marsh Sleaford), Phil Douglas (Rickerby Cornhill), Mathias Scheiper (HSW - Head of After Sales Support), Phil Monument (Manns Saxham), Matthew Traves (Marsh Sinderby), Martyn Scott (Rickerbys Alnwick), David McIntosh (Sellars Inverurie),

International news

CLAAS helps feed Sudan

The development of a functioning, sustainable agricultural industry is helping to provide stability in the Sudan, and overcome the problems caused by years of ethnic disputes, civil war, failed harvests and drought.

One of the companies leading this drive is the Kenana Sugar Company, which is partly owned by the Sudanese government and a co-operative of farmers. A subsidiary company KIAS (Kenana Integrated Agricultural Systems) has been established to help develop a modern agricultural structure and educate farmers. In all, the company farms 162,000ha of land, which is double cropped and the produce is then distributed between the farmers co-operative.

One of the major hurdles that has had to be addressed is the lack of modern agricultural machinery. To overcome this KIAS has been working closely with CLAAS to build-up a machinery fleet that will enable them to realise the potential that the land offers. Such is the regard with which CLAAS machinery is held, that 'DOMINATOR' has become the Sudanese word for a combine harvester.

To date, CLAAS has already supplied KIAS with:

- 40 AXION tractors
- 100 ARION 630 tractors
- 60 AVERO combine harvesters
- 20 QUADRANT big square balers
- 40 DISCO mowers
- 10 LINER rakes

Some of the 140 CLAAS tractors operated by KIAS Sudan

Annual Investment Allowances - The need to plan effectively

Tim Robertson (CLAAS Finance National Sales Manager)

There is a fundamental change coming in terms of the capital allowance rules. At present the tax relief for capital expenditure is given via capital allowances and currently the Annual Investment Allowance (AIA) is £100,000. This means businesses can claim 100% relief on the first £100,000 of taxable profits invested in plant and equipment and some other capital items.

From the 6th of April 2012 (1st April 2012 for Limited Companies) this is set to reduce to £25,000. If capital purchases are planned for this period then consideration needs to be given as to timing the purchase in order that the maximum relief may be claimed.

In addition, currently any writing down allowances not covered by the AIA or previously held in a capital allowances pool will reduce from 20% to 18% from 6th of April 2012 (1st April 2012 for Limited Companies). When the two are added together this will have a significant impact in terms of potential tax paid.

Any assets placed on a Hire Purchase agreement with CLAAS Finance are eligible for relief in the same way as using cash. There are however rules surrounding when relief may be claimed and advice should be sought from your accountant prior to committing to a purchase.

Post April 2012 is clearly going to be a lot less attractive in terms of purchasing machinery in terms of reliefs. When the two are added together this will have a significant impact in terms of potential tax paid. It is vital that agricultural businesses take a long term view with regards capital expenditure and plan now to maximise tax reliefs that are available and ensure that the timing gives the maximum benefit.

Who are CLAAS Finance?

CLAAS Finance was set up to support customers wishing to purchase CLAAS equipment and has been operating successfully for the past twenty years. Despite the unstable economic climate of the past three years CLAAS Finance has continued to support to its customers purchasing CLAAS machinery. The company now employs eighteen people, ten of whom are Regional Finance Managers located throughout the United Kingdom and meet customers face to face on a daily basis .

CLAAS Finance offers funding solutions for mowers through to the flagship LEXION 770 combine. CLAAS Finance offers a range of finance solutions including Hire Purchase, Lease and Contract hire with maintenance. Clearly with 20 years experience they understand that no two farms are the same and that Agri businesses have times of the year when it is better to make repayments. CLAAS Finance offers cashflow matched solutions to ensure that payments are made when the business can best afford it.

CLAAS Finance welcomes the opportunity to discuss your individual requirements and offer a solution based finance package

Legal

Towing the line – are you road legal?

With the approach of the silage and cereal harvesting season, do you know what traffic regulations apply when driving your forage harvester or combine on the road?

In order to try and clarify the rules relating to agricultural harvesting machinery, in consultation with the Department for Transport and the Police, here we outline our interpretation of the regulations as they currently stand.

For full details, please refer to the UK Road Regulations which are covered by: "Statutory Instrument 1986 No 1078 Road Traffic - The Road Vehicles (Construction and Use) Regulations 1986"

Industry negotiations to change the Construction & Use (C&U) regulations have been ongoing with the Department for Transport for the past five years, without any satisfactory outcome. However, in due course it is expected that new European regulations will be introduced which will cover all these requirements.

In the meantime, continued use of agricultural harvesting equipment is expected to be permitted using the basis of the following guidelines, as discussed with Department of Transport officers; however this cannot be taken as an exemption to the law as it currently stands, within the C & U regulations SI number 1078:1986.

COMBINE & FORAGE HARVESTERS ON THE ROAD:

A combine over 4.3 metres wide:
(e.g. all LEXION's with 1050/50R32 tyres)

- This needs to be treated under an "STGO" (Special Type Goods Order)
- Movements require a VSE (Vehicle Special Exemption) order from DfT.
- Contact your local Police Abnormal Loads Officer
- It cannot tow trailers of any kind
- Speed on the road is limited to 12 mph (19 km/h)

A combine between 3.5 and 4.3 metres wide:
(e.g. LEXION 770 to 620 & TUCANO 480 to 320 with 800/65R32 tyres or above).

- It should not tow a trailer of any kind
- Speed is restricted to 12 mph (19 km/h)
- An escort vehicle must be provided
- Local Police should be notified of any movement on the road.
- Some local Police forces may provide dispensation, on prior request

A Combine or Forager under 3.5 metres wide:
(e.g. LEXION 750TT, 750,740,630 & 620 with 680/85R32 tyres or smaller. TUCANO 430 & 320 with 680/85R32 tyres or smaller and all AVERO's and JAGUARS)

- It can tow an Agricultural Trailed Appliance Conveyor (ATAC) which is in effect a Cutterbar transporter
- Speed is restricted to 20 mph (32 km/h)
- Local Police should be notified of any movement on the road
- Some local Police forces may provide dispensation, on prior request
- An escort vehicle is recommended.

CUTTERBARS / FRONT ATTACHMENTS TRAILED BEHIND A COMBINE / FORAGER:

An Agricultural Trailed Appliance Conveyor (ATAC) is a purpose made transporter, which is intended for one purpose only - to carry a piece of agricultural equipment such as a combine cutterbar. It is in effect a Cutterbar or Front Attachment transporter.

- It is restricted to 20 mph (32 km/h)
- It must have pneumatic tyres
- It should have a maximum of 510 kg unladen weight.
- It should have one axle
- Extremities must be marked
- Lights are required, including turn indicators.

All cutterbars of 7.5m or less behind a LEXION, TUCANO or AVERO:
An ATAC which complies with all of the rules above and is less than 3500kg gross weight, can be towed behind a combine of less than 3.5 metres wide.

All cutterbars of 9.0m and above from 2011 onwards. All DIRECT CUT DD 610 & DD 520 Forager Front attachments:
An ATAC over 750kg unladen weight should have brakes. Over-run brakes are acceptable, provided they meet the minimum braking requirements and the combination is restricted to 20 mph.

CUTTERBARS / FRONT ATTACHMENTS TOWED BEHIND A TRACTOR:

A cutterbar on a purpose made transporter - such as an ATAC - and towed behind an agricultural tractor, becomes an "Agricultural Trailed Appliance" (ATA) for which different regulations apply.

- It is restricted to 20 mph (32 km/h)
- It must have pneumatic tyres
- Extremities must be marked
- Lights are required, including turn indicators

All CLAAS Cutterbars up to 12m towed by a tractor:
There is a special section within C & U, which allows a vehicle combination to include a trailer, constructed for the conveyance of specific exceptional length indivisible loads:

- The maximum length limit is 27.4 metres.

All Cutterbars 9.0m and above. All Forager Direct Disc headers, 520 and above:

- Brakes are required where the unladen weight is above 750 kgs. Over-run brakes are acceptable, provided they meet the minimum braking requirements and the combination is restricted to 20 mph.

For further information www.roadtransport.com is a useful website.

RENEWABLE ENERGY SPECIAL

Whilst farm-based energy generation is still in comparative infancy in the UK, the surge in interest over the past couple of years highlights the recognition of the opportunities that exist.

The driver has been the European policy aimed at tackling climate change and the UK target within the Renewable Energy Directive (RED), that 15% of energy consumption by 2020 should be from renewable sources.

Whilst the UK may be a comparative newcomer to the on-farm energy production party, there is much that can be learn from elsewhere in Europe.

CLAAS first got involved in the practical application of growing crops for generating electricity nearly 25 years ago and products such as the JAGUAR and XERION have become the machines of choice for harvesting, ensiling and handling digestate.

Bioenergy can compete with food

An important factor within any expansion in the industry is the debate of food v energy. European food imports alone already amount to $46 billion and with worldwide population growth this will place greater demands on the use of land for growing food.

So whilst energy farming looks set to considerably expand in both the UK and Europe, it is important that the highest levels of bioenergy efficiency are achieved in order to avoid using any more land than is absolutely necessary.

With this in mind, CLAAS hosted an International Biogas Symposium in January, which was attended by delegates from 17 countries.The aim of the Symposium was to look at how to achieve the maximum energy potential from biogas plants and each hectare of land, but at the same time boost overall financial performance.

The development of newer, higher yielding maize varieties bred specifically for biogas will play a major role in optimising output per hectare, but improvements in technological efficiency are also important if land use is to be kept to a minimum.

Looking at overall production costs for operating a biogas plant, according to Dominik Grothe of CLAAS, whilst 50% relate to the plant itself (gas production, electricity generation and residue storage), producing the substrate then accounts for 40% (seed, fertiliser, harvesting and handling) and is a key area to look at.

The quality of substrate, principally maize silage, fed into the digester is one of the key elements in the overall efficiency of the plant. The higher the quality of the maize, the greater the biogas yield and the more economically efficient the plant becomes.

Chop quality and length therefore play an important role as the shorter the chop, the greater the surface area for microorganisms to break down the plant and create methane for gas production. In addition, it is important that the crop MC level should not be above 35%. In later harvested crops, not only will the higher lignin levels in the plant prove harder to break down, but the crop will also be more difficult to compress in the clamp. Where necessary the use of silage additives should be considered and adding microorganisms to the fermenter can help boost gas yields by up to 10%.

As with all silage, good clamp management is essential for quality. Ideally the clamp should be filled in 40cm layers and then thoroughly compacted to about 270kg TM/m3, as poor compaction can result in a 15% loss in energy production through heating.

In order to achieve this, Dominik Grothe suggests a rule of thumb that the weight required for compaction should be a quarter of the hourly throughput of the forager. So a JAGUAR harvesting 200t/hr should have 50t of compaction weight on the clamp, making a tractor such as the XERION ideal for this task.

Fast filling and air-tight sheeting will help preserve quality, and then once opened losses should be kept to a minimum by keeping the open face as narrow as possible to avoid heating.

The adage that ‘Where there’s muck there’s brass’ would certainly seem to be the case when it comes to the benefits of digestate, which has the potential if applied correctly to result in compound fertiliser savings of around £80/ha .

Comparing digestate with cattle slurry, typically not only will digestate be drier, but it will also contain more directly available ammonium nitrogen. In order to ensure that 100% of this ammonia nitrogen is available to the plant, the digestate should be injected into the ground, rather than surface applied which can result in losses of up to 50%.

George Gittus

Whole farm AD benefit

This spring will see work start on a new 1.4Mw Anaerobic Digestion plant at Symonds Farm next to the CLAAS UK headquarters at Saxham.

The arrival of the diggers represents the culmination of three years of learning, researching, planning and adapting for the joint venture partnership of Geo Gittus & Sons Ltd and Material Change AD Ltd. For George Gittus, the project has been both exciting and a challenge. Aside from providing an additional revenue stream, looked as part of the overall farm picture, it will also result in positive rotational and agronomic benefits.

"With wheat at £200/tonne there is the question of why devote good wheat ground to maize for energy production. Looking at the bigger picture it could be quite a benefit," explains George. "We currently operate a wheat/rape rotation on a large part of the farm, but that is becoming increasingly unsustainable. Oilseed rape is not the break crop it was, as the chemistry is not available to so easily control weeds, especially blackgrass. Second wheats can be a shocker and don't compare to first wheat or rape, whilst maize for energy compares well with other break crop options, with the added benefit that the energy price is likely to be consistent, plus it provides the opportunity for cultural control of resistant blackgrass."

"I honestly believe that we do need to go back to a more mixed farming system in order to reduce our risk, plus we will get the benefit of P & K from the digestate. AD will give us the opportunity to enhance all aspects of crop production whilst ensuring that we remain a productive and sustainable farm. We can definitely see that there will be a long term gain and agronomic benefit."

"It has been a long process, but it has given us time to have a hard look at what we are doing and ensure that the project is right. One of the key things we have learnt is to keep it simple, at least in the initial stages, but I am sure that what we start with will not be what we are doing in five years time. You have to keep an open mind and keep looking at things in a completely different light."

The AD plant will be supplied by Agraferm Technologies AG and is located on the site of a redundant pig unit, for which George had looked at a number of options before opting for AD. "We did look at gasification, but it was cutting edge so inherently risky, plus you have no control over the feedstock, which I feel is essential and what makes AD attractive."

Initially George will be utilising 400ha of maize to feed the plant, and whilst also using pig muck from an adjacent indoor unit is an option for the future, he has ruled this out for the time being due to the cost of chopping the straw and the energy needed.

With a business park also located on the main farm, which is quarter of a mile from the plant, this will also provide a useful outlet for the heat generated. The other option also being considered is to supply heat to CLAAS. "The paperwork involved is complicated, so initially we are looking to get the plant up and running so as to prove that it works, and then look at the best means of economically utilising the heat."

"AD has a lot of potential and will provide fuel security for both me and my tenants as the cost of electricity is bound to keep going up. However, I am convinced it is essential to be self-sufficient and maintain control over your feedstock. That's not to say that outside sources cannot be ruled out but it's a competitive market and due to the credit crunch and pressure to recycle, it's probable there will be less food waste available, rightly so."

Trials reveal all

When it comes to selecting and growing maize varieties for biogas production, with 700ha of biogas maize varieties in the ground, John Jackson has more experience than most.

John Jackson

Needing to ensile around 34,500 tonnes of maize to meet the requirements of the 15GWh biogas plant that Severn Trent Water has built on its farm at Stoke Bardolph near Nottingham, John grows eight different varieties to spread maturity over his seven week harvesting period using a JAGUAR 870. However, prior to selecting a variety, each has gone through his own trialling and assessment programme to ensure they are ideally suited to his unique conditions.

"For biogas production you are basically looking for varieties that maximise dry matter yield but which still maintain an ME of about 11-11.5, in order to achieve a more efficient biodigestion and higher methane yield over the dwell period of about 90 days," he explains. "Ideally I am looking for dry matters of between 30-34% and because of the large area we have to harvest, maturity is therefore an important consideration to avoid crops becoming overly ripe. Also it is important that whilst biogas varieties are geared for bulk, you need to be careful that they do reach maturity in time."

John stresses that the key to selecting any variety is to ensure that it is suited to your farm's specific conditions, taking into consideration factors such as soil type, height above sea level, fertility and target harvest date.

To narrow down the varieties that are best suited to his highly fertile, but drought prone sandy loam soils, John has adopted an extensive on-farm trials programme which last year compared 36 varieties, and 54 the year before.

"Basically in the trials I am looking to built trend patterns for fresh yield, starch yield, dry matter and ME," he explains. "From these trials I take the top six varieties which go forward to second year trials in larger eight ha plots, and if they still perform well then in the third year I will grow them on a field scale."

This is the first year that John has grown specific biogas varieties used in mainland Europe, having gained the confidence that they will perform well in his particular situation, where yields previously have averaged about 55 tonnes/ha.

"I aim to start harvesting in mid-September, so of the eight varieties I am growing this year, 30% is down to the forage varieties Salgardo and Beethoven for their early maturity. Changing to biogas specific varieties, 40% is down to the medium maturing varieties Ronaldinio and Torres, and the remaining 40% are the later maturing Francisco and Benicia. We also rent some ground on which I am growing Fabregas and Award. I grow two varieties together as backup insurance should one variety be affected by bad weather at flowering."

Whilst John initially selects varieties based on their performance in the field, once they are being used in the AD plant, performance from what he calls his 'Concrete Cow' is also carefully monitored using Schmack's 'Fit for Biogas' ongoing support service.

"Rather like dairy herd health assessments, every two weeks we send off samples which Schmack thoroughly analyse for aspects such at pH and ammonium, acetic and propionic acid levels. From this they assess the overall performance and efficiency of the plant and provide advice on any areas that need attention, such as nutrient levels or the need to add supplements, such as iron. This is then followed up by a more thorough analysis every three months."

"To be able to call upon this wealth of experience and technological advice is essential for overall efficiency, as the difference in output between a well run and poorly run plant can be as much as 30%."

With daily electricity production running at about 1.8MWh, the AD plant at Stoke Bardolph is well above target and making a positive contribution to Severn Trent's aim to produce 30% of its electricity needs from renewable resources by 2015.

The Severn Trent AD Plant at Stoke Bardolph

Veg-powered energy

Staples Vegetables have recently commissioned what is probably one of the most integrated closed loop AD plants in the UK. It enables them to fully utilise vegetable waste for the production of electricity, heat, cooling and fertiliser for use on the farm, and even potentially fuel for their lorries.

Farming over 4000ha, Staples Vegetables Ltd is one of the largest vegetable producers in the UK, growing a broad range of brassica crops for the major supermarkets. An inevitable consequence is the amount of vegetable waste, amounting to over 50 tonnes a day from trimmings in the pack-house or out-of-specification vegetables, which in the past have gone for cattle feed or spread back onto the land. In addition, due to fluctuations in seasonal demand, at times crops also have to be left unharvested and ploughed back in.

The packhouse and cold store chillers at Staples' headquarters near Boston are major contributors to the £1000 of electricity consumed a day. So AD therefore offered the ideal opportunity to add value to a waste product and generate sustainable green energy that would substantially reduce operating cost.

Due to its high level of integration, the plant is one of only five in the UK to be recognised as an exemplar project by WRAP (Waste & Resources Action programme) and awarded support from the Environmental Transformation Fund in order to promote the development of AD in the UK.

"The AD plant is the latest element in our aim to develop a fully sustainable farming system," explains Production Director George Read. "In the last 10 years we have installed a series of winter fill reservoirs and an underground pipe network to give us water security. The development of the AD plant will now provide energy security and enable us to control cost by producing our own heating, cooling and fertiliser."

The 1.4Mw plant was supplied by the Danish manufacturer Xergi. The plant consists of two receiving hoppers, one for the 70 tonnes of vegetable waste used each day which goes through a macerator, and the second for the 30 tonnes of maize which is also used due to its higher energy value and to compensate for any shortage of vegetable waste. The substrate is initially fed into three dosing modules for mixing, prior to entering the 4,000m2 thermophilic primary digester where about 90% of gas production occurs. After around 28 days, the digestate passes into the secondary digester to complete the cycle.

Finally the digestate is put through a centrifuge, creating about 35,000 tonnes of liquid fertiliser, that is spread back on the land surrounding the packhouse using the irrigation pipe network, and 6,000 tonnes of solid compost, which will reduce mineral fertiliser use by about 40%.

To meet current demand, 364ha of maize is being grown on land either not suited for vegetable production or as a break crop, harvested using a JAGUAR 870 forage harvester bought through **Marsh** at Ulceby. However, in the future as better use is made of the vegetable waste, it is planned that the maize area will be reduced to about 300ha, but equipped with a combine reel-type header, the JAGUAR will then be used for clearing unharvested crops or stems from harvested crops such as broccoli, for use in the AD Plant.

George Read

"About half the electricity generated will satisfy our site demand, and the rest will be sold into the grid. Of the heat produced, whilst some is required to maintain the 50 degree working temperature in the primary digester, the remainder is then either used for on-site heating or for heat absorption cooling to chill the packhouse to further improve quality," explains George.

"Looking to the future, in addition to possibly replicating this on our other farms, we are also considering other uses for the excess methane, including compressing it to create a liquid fuel that could then be used in our fleet of lorries."

Steve Bacon (left) and Keith Wilson

Miscanthus resurgence

In the two years since International Energy Crops (IEC) was founded, the company has helped revitalise the image of miscanthus as a viable and profitable energy crop.

Set-up as a separate division of the Wilson Farming Group, which is headed by the current Farmers Weekly Contractor of the Year, Harry Wilson, IEC has set out to re-establish confidence in the crop and develop the agronomic and management techniques to help growers gain maximum returns. At the same time they have also worked closely with the end market to build confidence and demand, and look at future options.

The experience the Wilsons have with miscanthus is considerable. Growing 1000ha of which 800ha is rhizome multiplication and 200ha for energy production, but the company to whom they were contracted collapsed in 2009. Due to the investment they had made and faith that the Wilsons have in the crop, they decided to set-up their own company, IEC, with the aim of offering growers a professional service covering the production and supply of rhizomes, growing and harvesting, plus end marketing.

"All the previous problems surrounding miscanthus were not the fault of the crop," states IEC Managing Director Keith Wilson. "Grown and managed properly, yields can be as high as 20 tonnes/ha giving a margin of up to £800/ha from year five. From year three onwards the only input required is harvesting so miscanthus has a definite place in today's volatile markets. It will complement any farm, free management time and make a positive contribution to overall farm income."

Currently the end market for miscanthus is 90% driven by Drax power station in Yorkshire and the straw-fired power station at Ely. "Drax has the potential to take two million tonnes whilst Ely will take 200,000 tonnes, plus they are building a new plant at Thetford. Both these buyers are fully committed to the crop, to the extent that they are offering guaranteed, index linked contracts for up to 10 years. Also there is the potential for other markets such as pelleting, bedding and ethanol production."

For the Wilsons, one of the most important aspects of the crop that needed attention was planting the crop. Due to the variable shape and size of the individual rhizomes, the automatic planters used previously resulted in uneven, patchy emergence that ultimately affected yield. To counter this, the Wilsons have developed their own precision planters which have helped to considerably improve establishment and increase yield.

Another critical aspect was the rhizomes themselves. Previously these had been cold stored for several months, which resulted in the rhizomes drying out thus affecting germination and vigour. With sufficient rhizomes to plant 20,000ha, to overcome this, lifting is left as late as possible, and prior to delivery each batch is tested for vigour and viability. The rhizomes are treated as fresh produce and last year's planting results have confirmed that this is vital to even establishment.

IEC now guarantee a 10,000 plant/ha emergence, which is the level required to obtain a 50% planting grant from Natural England, which is 'ring fenced' European money and currently guaranteed through to 2013.

"In the first two years until the first crop is ready for harvest, some weed control will be necessary and we are trialling the benefit of applying fertiliser and foliar feed at this stage, but from year 3 onwards the only cost is harvesting and baling."

Harvest starts in February when the crop is around 30-35%MC with the aim of finishing by late April. With the growth in interest in the crop, seven of the 25 JAGUAR forage harvesters operated by the Wilsons have been specifically adapted to harvest miscanthus, which between them clear about 6,500ha working throughout the UK.

The crop is cut using a standard ORBIS header, which is ideally suited for the crop and leaves a clean short stubble. Having cut the crop, the aim is to break and twist the stem into 45cm lengths and leave a fluffy swath for rapid drying and subsequent baling when moistures are down to 15%MC.

To achieve this, the Wilsons replace the standard JAGUAR chopping cylinder with their own design of cylinder, then take out the belly plate and put in some additional guards so that the chopped material falls in a swath between the front wheels.

"Miscanthus provides 20 years of guaranteed income and will appeal to ambitious and progressive farmers, or those with awkward or heavy land that's difficult and expensive to work, and where they struggle to achieve a reliable profitable income from a cereal rotation," says Keith. "By putting this land into miscanthus, this then allows the farmer to concentrate on their better more productive land or other aspects of their business. Also, with the uncertainty over the future of Single Payments and modulation, miscanthus provides a good buffer to any potential changes."

CLAAS in the field

Shapely bales

Having previously relied on subcontractors for round baling, last year contractor Mark Andrew decided it would be better to operate his own baler.

Based near Bodmin, Mark offers an extensive range of contracting services and over the years has increasingly moved to using CLAAS tractors and machinery, on account of the reliability and the service he has received from **Hamblys**.

Heading up his extensive fleet of green harvest machinery is a JAGUAR 870, plus a new LINER 3500 and LINER 2900 rakes, a VOLTO 770 tedder and DISCO 8550 triple and DISCO 3100 CONTOUR mower conditioners. Completing the CLAAS line-up are an ARION 640 CIS and a ARION 520 with FL loader, which has just replaced an ARES 567.

By the end of the baling season, Mark's new ROLLANT 454RC had made over 9,500 bales and one of the most noticeable features of the baler is how dense the bales produced have been, with weights monitored by electronic scales on the loader.

Mark Andrew

"Some of the heaviest and densest bales we made were from some whole wheat, which was a bit of an experiment as due to the dry spring, a lot of farms were running short of forage. Using a front-mounted mower and with all the chopping blades engaged, we baled 200 bales which weighed about 640kg each and were absolutely solid."

"In addition we baled 7300 silage and haylage bales, weighing between 450 and 650kg and a further 2000 oat, barley and wheat bales that averaged 230kg."

"The ROLLANT went extremely well and makes a good, even shaped bale which due to its density keeps its shape even when at the bottom of the stack. Typically the ROLLANT will average about 4-500 bales a day, but we have done as many as 620. An added advantage is that transport is reduced and due to the increased density we are getting an extra tonne per trailer load."

Over the season, four different drivers ended up using the ROLLANT 454, so one of the other attractions for Mark was its ease of use.

"The screen on the (CLAAS COMMUNICATOR) terminal provides you with a lot of information. All the operators found the ROLLANT simple to set-up and use and maintenance is straightforward, with everything easy to get-at and well thought out. Also the film storage system and loading chute is well designed and makes handling the film rolls easy, because those rolls are not light."

Roy Davey

New LINER 3500 impresses

Ahead of its launch last autumn, contractor Roy Davey ran a pre-production LINER 3500 for the whole of last year's foraging season.

The new LINER 3500 was bought to replace a four-year old LINER 3000 and mainly used ahead of his JAGUAR 870 forage harvester. In addition to foraging, Roy also specialises in baling and to meet all needs runs a QUADRANT 3200, plus a QUADRANT 2100 and QUADRANT 1150. Whilst he usually uses a LINER 2900 ahead of the balers, at peak periods the LINER 3500 was also put to work ahead of the largest QUADRANT.

Comparing the new LINER 3500 with its predecessor, Roy has been extremely impressed by the swath it leaves and its ease of use.

"An inherent problem with any four-rotor rake is that in certain conditions, as the crop is moved from the front to the rear rotor this can create lumps. However, on the LINER 3500 because it has an additional tine arm on each rotor (12 instead of 11 on the LINER 3000), this means that each tine arm is moving slightly less material, which seems to have overcome this problem and is a vast improvement."

For mowing, Roy uses front and rear 3.0m mowers fitted with spreading hoods. The crop is then rowed-up after 24 hours with the aim that the LINER 3500 will cover between 60 and 80ha a day depending on field size.

"The COMMUNICATOR makes it easy to set-up the new LINER 3500. Each field is different, but by being able to quickly and easily alter working height and the independent lift for each rotor, there is no excuse for not doing a good job," states Roy, who is based near Saltash in Cornwall.

"I like the fact that the Power Beyond load sensing hydraulics mean that the tractor is not constantly pumping, plus the horseshoe shaped headstock ensures that even on tight turns there is no danger of the PTO shaft being caught or damaged."

"Both in the field and on the road, it's extremely manoeuvrable and runs well on the larger tyres. We have a lot of small lanes in this area, but transport is not a problem and because the rotors drop once lifted, we rarely now need to remove tines to reduce the transport height."

"Overall the LINER 3500 is very well designed, extremely strong and reliability excellent, plus the support and service from both CLAAS and **Hamblys** as ever has been what we expect from them."

Standardising on CLAAS

Robert Wilson has been so pleased with the performance and reliability of his ARES 656RC, that he has decided to just run CLAAS tractors, trading in three other tractors for a new ARION 640CIS.

When Robert bought the 132hp ARES 656 in 2006, it was one of the first CLAAS tractors to be sold in the Darlington area, and during that time has proved to be very reliable and cheap to run.

Robert's policy has been to usually replace his main tractor about every three years in order to keep up to date. But when it came to thinking about replacing the ARES, he decided instead to consolidate his tractor fleet and replace three other tractors with an 155hp ARION 640CIS, which has a boost to 180hp.

"I have had no problems with the ARES and it has served me extremely well," explains Robert who farms 120ha at Dalton-on-Tees in North Yorkshire. "I have always aimed to keep at least one tractor up-to-date. However, because I have been so well looked after by **Seward** and the tractor has been so reliable, I felt that instead of replacing the ARES, it would make sense to reduce the number of tractors and just base everything around the two CLAAS tractors."

The majority of the farm is down to cereals, growing wheat, oilseed rape and barley, but Robert also runs 220 ewes and takes in B&B pigs on a 12-week cycle for a neighbour, to whom he sells back most of his cereals.

The decision to go for the higher powered ARION 640CIS was made in order to provide extra capacity for the future. Currently everything is ploughed using a 5-furrow Dowdeswell or shakerated, before pressing and drilling with a 3m combination drill. However, with a view to cutting his establishment costs and preparation time, having a more powerful tractor will provide the option in the future to use wider cultivation equipment for primary cultivations and reduce the area currently ploughed.

"The two tractors complement each other well. They are both capable of doing most jobs, apart from the Shakerator which goes on the ARION," says Robert.

"The ARION is a great tractor to operate. With the cab and front axle suspension it's very smooth and you can tell the difference and makes me realise what I have been missing – comfort is important if you are putting in long hours at peak times."

"Also it's extremely easy to operate, as whilst I do most of the work myself, my wife, son and daughter do help when it's really busy. Everything is at your fingertips and for someone not used to the tractor, the HEXASHIFT transmission makes the ARION easy to drive, plus it's very fuel efficient."

"I bought the ARES because of its performance when I had one on demonstration, plus it was competitively priced. And whilst I have looked at other makes, I keep coming back to CLAAS because it's a good product, reliable and I have been extremely well looked after by Seward both when busy and also out of season. Whilst I might have had one of the first around here, CLAAS tractors are definitely growing in popularity and there has been a noticeable shift towards them in this area."

Thomas Roche with the CLAAS QUADRANT 2100.

A farmer's baler

Co. Cork in the south west of Ireland has some of the richest farming land in the country and based in the east of the county is Thomas Roche and his son Cyril. The father and son duo run a tillage operation just outside Fermoy, concentrating on producing winter wheat and winter barley, plus a substantial amount of baling.

"We would be operating about 485ha in total, half winter wheat and half winter barley," Thomas says, adding "Land around here is mostly free-draining and yields are usually in the region of 8.6 tonnes/ha."

Unusually, considering the amount of cereals they grow, the Roches do not run a combine. "We hire in (contractors) combines to cut our corn, it makes the harvest a lot easier to manage. Otherwise I would have to hire an army of men to work on the farm and it would cost a lot more. We spread the harvesting between a number of contractors, we give them all a bit."

They choose to concentrate their efforts on the other aspects of harvest. "We concentrate more on the straw and grain part of the harvest," Thomas explains, adding, "The straw might need turning or swathing before we bale it and we also dry the grain before we store it." There is more than enough to keep the pair of them busy.

Baling accounts for an awful lot of their work which includes hay, hayleage and straw. While they do produce round bales, the larger proportion of the baling is medium sized square bales, made using a QUADRANT 2100 purchased last autumn.

"It's a farmer's baler and the 80 x 70cm bales are a size we can sell to farmers whilst bigger sizes are just for the mushroom growers," says Thomas. "About three quarters of what we bale is straw, with hay and hayleage accounting for about 4,000 bales."

They didn't purchase the baler to do contract baling but as Thomas explains, "Our own work takes priority because everything we produce is for sale, but if we have time we will do a bit of outside baling. It helps pay for the baler."

Their CLAAS QUADRANT 2100 has twin axles fitted with 520/50-17 wheels and tyres which Thomas says, "It's better on the road and in the field, especially working, there is less 'baler-bounce'. Output depends on the the swath. We normally row the crops into a 9.0m swath, a 3.0m swath is too hard on the baler, it would be bouncing around the field baling at speed. It's better off to take it handy on the baler," explains Thomas. "On a good day with a nice swath of straw you could do 150 bales/hr, but we don't get too many of those days," he adds.

Equipped with the CLAAS COMMUNICATOR terminal, Thomas likes the baler; "It's easy to work and there is plenty of room around it too if work needs to be done on it."

Local CLAAS dealer Tim McCarthy of **McCarthy Plant & Agri Sales**, Ballyrichard, Carrigtwohill, Co. Cork gives, "Good service looking after the baler. They do their very best for you and if they don't have a part in stock, they would even take a part off another baler to help you out and get you going."

In addition to the CLAAS baler, the Roche's also run a CLAAS DISCO 3050TRC AS trailed mower-conditioner with grouper which takes care of their hay and hayleage mowing requirements.

For the 2011 season Thomas hopes to increase the volume of bales through their CLAAS QUADRANT 2100 by around four thousand, declaring "This year we would hope to do in the region of 20,000 square bales."

Roy Townley

Wider swaths chop costs

The larger swath achieved by running a new 14m wide LINER 4000 rake ahead of his JAGUAR 970 has saved Roy Townley 100 chopping hours, with further cost benefits throughout the whole foraging team.

J D Townley & Son provide a general contracting service to a broad range of farmers, mainly within a 30 mile radius of their base near Ballygowan just south of Belfast, and since buying their first CLAAS machine 25 years ago are now probably one of the largest CLAAS users in Ireland.

With maize accounting for 400ha of the 2,400ha of crops harvested each year, the change last year from a 623hp JAGUAR 900 to the twin engine 730hp JAGUAR 970 was made to gain more output in both heavy, dense grass crops and maize, which is mainly grown in the coastal Ards Peninsula.

“The new JAGUAR has gone really well, I have been well pleased with it,” says Roy. “For maize we are using a 10-row ORBIS header which really covers the ground well, whilst in grass we can comfortably average between 60 to 80ha a day depending on the farm.”

One of the keys to maintaining high output has been the LINER 4000 which, with its maximum working width of 15m, Roy says is well matched to the JAGUAR, helping ensure the forager is working at maximum capacity whilst maintaining a reasonable forward speed. Crops are mown using a set of DISCO 8550 triple mowers on the XERION in reverse mode, which is one of only two in Ireland, with the LINER 4000 going in to row-up the crop after 24 hours.

“Having the triple mowers on the XERION is a superb combination. A normal tractor would not be nearly as handy; everything is in front of you so it’s easy to see the mowers and the CVT transmission is great, plus the XERION is extremely manoeuvrable, which is especially handy in small fields, but is also very good on the road.”

“The new LINER 4000 is used at its full width most of the time and the difference it makes compared to the smaller 9.0m rake it replaced is considerable. On the JAGUAR alone it has saved 100 chopping hours and obviously there is then a knock-on saving down the team. You don’t necessarily see it over a day, but it makes a definite difference over a season.

New for this year is a tracked LEXION 750TT with a 40kph transmission, which will be the first in Ireland and has been bought to replace a 4WD LEXION 570. Running two other smaller combines, including a LEXION 520, in total Townley’s harvest around 1000ha of cereals each year.

Of this, the smaller LEXION 520 is mainly used to clear 280ha spread over three farms in the Downpatrick area, whilst the new LEXION 750 will be responsible for most of the remaining acreage which is spread over a wider area and can be up to 30 miles away.

“The combine will be doing a lot of roadwork so the higher transport speed will definitely help cut transport time. This will be the first time I have had tracks on the combine, but apart from cutting travel time and keeping the road width down to a minimum, hopefully the tracks will also reduce compaction, especially in damp conditions.”

Aside from the 338hp XERION 3300 which was bought in 2008 when not mowing is also used for cultivating. Completing the line-up of CLAAS machinery are a further two tractors. The first, an AXION 830 was also bought in 2008 and is mainly used for ploughing and big baling. The second, an ARION 640 CEBIS was added last year specifically because it is one of the few tractors on the market for which ground-drive PTO is available as an option, which is used to drive the axle on a 3000 gallon slurry tanker.

“The main reason we have stayed with CLAAS for so long is due to the service and support we have received from CLAAS and its dealers,” explains Roy. “All the major manufacturers are well represented here, but I cannot fault the service we get from **Erwins Agricare**, they are extremely good and their technicians are very able, plus they carry a good stock of parts which is essential to me.”

Calling all Tractor Ted fans!

Tractor Ted fans will have the chance to see a wide range of CLAAS machinery at the two 'Tractor Ted Road Shows' that are being held this year.

In addition to the original show held on July 2nd and 3rd at Longleat House in Wiltshire, Tractor Ted will also be bringing his farm show to the Royal Agricultural College at Cirencester, on bank holiday Monday, 30th May, joining forces with the College's Food & Farming event.

These two events will enable Tractor Ted's fan club to get up close and personal with the star of the popular series of DVDs and books that depict real life down on the farm. In addition, Tractor Ted is also now making a regular monthly appearance in Farmers Weekly.

Entertainment at each of the days include sheep shearing demonstrations, dog trials, machinery demonstrations, Les and his incredible bale wrapper, diggers and vintage farm machinery.

In addition to the CLAAS machinery on display, visitors will also be able to enjoy tractor trailer rides courtesy of four CLAAS tractors.

"There is huge demand from youngsters to see Tractor Ted and the ability to bring his farm show to the Royal Agricultural College at Cirencester will reveal the joys of farming, through the eyes of Ted, to a much wider audience," says Tractor Ted creator David Horler. "Ted's fan club already enjoys 25,000 members and many of them want the chance to see Ted for real."

Visitors will also have the opportunity to learn about local crafts, local produce and enjoy the farm animal park, in addition to an interactive Tractor Ted farming area.

For more information on these great days out for all the family, visit Tractor Ted's website at www.tractorland.co.uk

Look out for Tractor Ted in the next issue of KidsTimes this Summer!

Simon Manasseh, general manager of CLAAS dealers Mill Engineers and Vaughan Agri meets Tractor Ted and his creator David Horler at the Royal Agricultural College, Cirencester, as the team prepare for the forthcoming Tractor Ted Farm Show.

Dear Cathrina ...

At CLAAS we always enjoy receiving your letters and hearing your news. So it is no surprise that when 9-year old Thomas Hobson wrote to CLAAS President Cathrina Claas-Mühlhäuser about his dad's new LEXION 560, that he should receive an answer from her.

Dear Cathrina

I have just read the HarvesTimes that you sent my dad and I thought I would write to you to tell you how much my dad likes his new LEXION 560. He has been driving CLAAS combines since he was 12, starting with a MATADOR STANDARD 10 foot cutter. He thinks that the LEXION 560 is a bit of an improvement on the MATADOR and would like to thank you for producing a brilliant combine.

George Thomas Hobson (age 9)

p.s I hope that I can drive a CLAAS combine when I leave school.

And the reply he got from Cathrina Claas-Mühlhäuser was:

Dear Thomas

Thank you for your letter, which was very encouraging for me and the entire CLAAS team. I also printed it in our CLAAS Intern magazine and everyone was very pleased to read about you and your dad, because you are such happy customers. The CLAAS team and I promise that we will do everything we can to make sure that one day – when you are old enough – you can also drive the best combine harvester in the world.

I wish you and your family a very happy Christmas.

Yours

Cathrina Claas-Mühlhäuser