

# HarvesTimes

The Journal for Agricultural Professionals

Winter 2014



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TUCANO  
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New VARIO and  
CERIO cutterbars  
Page 14

EASY and Precision  
Farming Focus  
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New ARION 400  
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**CLAAS**



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Video



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## LEXION 650

- 10,000 litre grain tank complete with 110 l/sec unloading system • Special Cut II chopper and chaff spreader • APS threshing system
- 359 hp CAT C 9.3 engine • VISTA II cab with colour CEBIS system • 8 straw walkers with Multifinger Separation System (MSS).



"The LEXION 650 is a well-designed, well-built, tried-and-tested machine. The output of the 650 means we're cutting dry grain at peak quality and also preparing ground sooner for the following crop."

Graham Brown, Redhul Farms, near Brechin, Angus, Harvest 2014

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# Welcome

Its hard to believe that we have completed our Winter 2014 issue of *HarvesTimes*, when most of the country continues to experience an uncannily mild Autumn. In fact we've had a Summer and an Autumn that can best be described as ones of highs and lows. The highs were the ideal growing conditions leading into harvest, which meant that most people had their earliest start for many years and recorded bumper crops. However, the continued downturn in grain prices has taken the edge off what for many has been a good harvest.



Jeremy Wiggins  
Sales and Marketing Manager,  
CLAAS UK

With little room for reducing variable costs, the focus for many businesses will now be how to improve machinery efficiency, reduce operating costs and optimise work practices.

The use of electronics and GPS within agriculture has definitely come of age and will play a vital key role as we move forward with innovative farming practises over the next decade. In this issue of *HarvesTimes* we have a special focus on EASY and Precision Farming, and the key role this has to play in improving efficiency.

CLAAS leads the way in TELEMATICS, with a newly developed website and the latest TELEMATICS system now widely available across the CLAAS range, this is an invaluable tool to help improve machinery logistics.

We also include reports on the impressive new S7 and S10 steering terminals, which have been very positively received by customers, with their ease of use and powerful functionality.

We also have much positive news on our tractor range, with the AXION 950 and 850 and the ARION 650 all setting new fuel efficiency standards in independent PowerMix tests.

Running costs and productivity have also been the drivers behind the new features now available for 2015 on the JAGUAR 900 foragers. The new TUCANO combine range recently launched introduces many of the key features on the renowned LEXION range to this middle bracket combine.

If you are attending LAMMA in January, do come and visit us on the CLAAS stand, we will be exhibiting all the new products for 2015 including the new ARION 400 range.

Kind regards

Jeremy Wiggins  
Sales and Marketing Manager, CLAAS UK Ltd



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All the latest images and videos of CLAAS machinery can be found on the official CLAAS YouTube channel at [YourCLAAS](http://YourCLAAS)



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# Farm Manager of the Year

Congratulations to Dave Green of A J Duncan, Aberdeenshire, who is this year's winner of the *Farmers Weekly* Farm Manager of the Year award, sponsored by CLAAS.

During his five years at A J Duncan, Dave has made many invaluable changes to the business, which owns 2,428ha and manages a further 1,618ha. A major step has been the closure of a 2,400 sow unit, which was finishing 24,000 pigs a year. In its place he has introduced 800 dairy-bred beef bulls which are finished for Scotbeef and 400,000 laying hens, an enterprise that required a £12m investment.

Dave's responsibilities further extend to managing residential and commercial lettings and he has also established a separate wind turbine business, which so far operates six turbines with more planned for the future.



Dave Green received his award from Trevor Tyrrell, CEO CLAAS UK.

The other two finalists in the Farm Manager of the Year category were Karl Rust of Joseph Camm Farms in Nottinghamshire and Keith Daly of Essex Farms in Essex.

Karl oversees a 1,650ha vegetable, root and combinable crop business to which he has applied a keen eye for producing quality crops, highly efficient organisation and customer focus.

At Essex Farms, Keith has overseen a considerable change in the 2,556ha business, including investment to improve the farm's infrastructure and expansion through several farm contracting agreements.

## Record number join CLAAS Apprenticeship scheme

This autumn, a total of 29 students from across the UK and Ireland will be joining the CLAAS Agricultural Technician Apprenticeship scheme, the highest intake level since the scheme was first introduced. Of these, 13 from Scotland, Ireland and the north of England will be studying at the SRUC Barony campus and a further 16 will be training at Reaseheath College in Cheshire.

These CLAAS students are amongst the first to be studying for the new Extended Diploma in Landbased Technology. This high level vocational qualification has been introduced to meet the Government's calling for training programmes that better meet employer's requirements.

The course is similar to the previous National Diploma in Landbased Technology, but includes assessment of their competence and skills, using work based evidence and e-portfolios.

Once completed, the students will then undertake additional advanced technical and industry certificates in the final year. By the time they qualify, they will be eligible for Landbased Technicians Accreditation Scheme (LTA) 2, Service Engineer status.

The latest students to complete their CLAAS Apprenticeship recently received their certificates at graduation ceremonies held at SRUC Barony and Saxham. Having qualified, the young technicians will have access to training and development pathways aligned to the Landbased Technicians Accreditation (LTA) Scheme, which will enable them to progress their skill base further. Having attained LTA level 2 status, with additional

dealer experience and CLAAS training, they will have the opportunity to reach LTA 3 (Master Mechanic) or even LTA 4 (Master Technician) status.



Graduating from SRUC Barony campus in 2014 were: Jack Dixon (RICKERBY), Adam Graham (GORDONS), Thomas Sloan (GORDONS) and Adam Vance (GORDONS).



Graduating from Reaseheath College were: James Barker (SOUTHERN HARVESTERS), Sam Cliffe (MORRIS CORFIELD), Alexander Deakins (SOUTHERN HARVESTERS), Oliver Dolbear (SOUTHERN HARVESTERS), Richard Emery (MILL ENGINEERS), Michael Flack (MILL ENGINEERS), Joshua Newman (HAMBLYS) and Matthew Scott (MILL ENGINEERS).

# New dedicated Used Machinery Centre

A new dedicated Used Machinery Centre has been opened at the CLAAS UK headquarters at Saxham, Suffolk.

The £1 million development was officially opened by Councillor Robert Everitt, the Mayor of St Edmundsbury, on the 7th August 2014. The importance of this development was evident in the fact that also attending the ceremony were Thierry Panadero (CLAAS Regional President Western Europe) and Jan-Hendrick Mohr (CLAAS Global Vice President, Sales and Service).

One of the first uses for the building was to host the 2015 CLAAS UK Annual Product Launch, attended by all the key CLAAS dealers from across the UK and Ireland.

The development of the new Used Machinery Centre at Saxham, is the first stage in the further development of the CLAAS Used Approved Scheme, which has now been expanded to cover all CLAAS self-propelled machines.

The building will provide dedicated facilities for displaying high quality used machinery once it has gone through the initial stringent approval procedure.

This thorough assessment means that those buying through the CLAAS Approved Scheme can have confidence that the



The new CLAAS Used Machinery Centre was officially opened at the annual CLAAS UK and Ireland dealer sales launch, which was held in the new building.

tractor or combine harvester has been fully checked to a high set standard. Only machines that pass the stringent approval procedure will be offered for sale under the CLAAS Approved Used scheme, and to back this up they will be covered by a warranty and a 0% subsidised finance scheme through CLAAS FINANCE.

The development of the Used Machinery Centre and expansion of the CLAAS Approved Used Scheme, will set a new benchmark for used machinery in the UK. It will also help instil confidence that buying a used CLAAS machine is a sound investment, with many of the benefits that would normally only be expected with buying new, allied to the low cost of ownership associated with buying a used tractor or combine harvester.

## CLAAS FARM PARTS

CLAAS has recently launched a new parts and components service called CLAAS FARM PARTS.

While CLAAS dealers will continue to supply parts and accessories for CLAAS machines through the existing CLAAS ORIGINAL brand, with the addition of CLAAS FARM PARTS they are now able to offer customers a far wider range of wearing and general parts for machinery and implement from other manufacturers, including sundry items.

CLAAS will be offering this new range of complimentary products in partnership with Granit Parts, one of the largest cross-brand, cross-sector specialist spare parts suppliers in Europe, serving the agriculture, forestry, gardening tool and construction industries.

CLAAS FARM PARTS can source and supply parts for all tractor and self-propelled machinery brands, in addition to high quality parts for cultivation implements, animal husbandry equipment, engines and gearboxes, plus hydraulic and electrical components.

General accessories will also be available for horticultural machinery, vehicles and trailers, as well as an extensive selection of workshop tools, supplies and equipment.

With a range of more than 4 million listed spare parts in stock, customers should be able to source all their requirements in 'one stop'.

All CLAAS FARM PARTS products have been manufactured to strict quality specifications by well-known manufacturers to ensure they comply with the standard set by CLAAS.

Supporting the CLAAS FARM PARTS service is a highly efficient delivery system from a central UK warehouse, backed-up by the main central warehouse in Germany, which holds over 150,000 different products.

The introduction of the new CLAAS FARM PARTS service will give customers access to a vast range of high quality parts through their local CLAAS dealer. Ask your "One Stop Shop" CLAAS dealer for more information including catalogues and promotions.



### Every little helps!

Mike Newton, who has been driving combines for over 60 years, couldn't resist showing that there is still plenty of life left in his 1966 CLAAS MATADOR Standard, which has a 10ft cutterbar.

The MATADOR is seen here working alongside a LEXION 760TT with a 35ft cutterbar.



### Get me to the church on time!

Whilst most people may choose a classic or luxury car to get them to and from the church for their wedding, **SELLARS** salesman Brian Penny decided instead that he and his new wife Amanda would travel in the first new combine he sold, a LEXION 760 bought by Robertson Contractors for this harvest.

Just so that his ushers would not miss out, they all travelled via an ARION 850 and to complete the CLAAS theme, the wedding cake even featured an ARION 640 on the top!



### Dealer news

To ensure our customers receive the very best Sales and After Sales support, CLAAS UK continues to expand and upgrade its dealer network across the UK and Ireland.

In Ireland, main dealer **KELLY'S** of Borris have opened a second branch at Abbeyleix in Co Laois, from where they will be handling the full range of CLAAS equipment. In Northern Ireland, **ERWIN** has also opened a second branch at Limavady, Co Londonderry. **MCCARTHY** has also expanded its business with a new branch at Clonakilty, Co. Cork.



After many years at their Station Road site in Brigg, **MARSH** is also moving to new larger premises.

In north Wales, following the retirement of Robin Williams, welcome to Steve and Bethan **ROBERTS** have taken over his premises at Sarn and will continue to provide sales and service back-up for CLAAS tractors and machinery in the area.

CLAAS UK also welcomes Paul Butcher, who has also recently joined the company as Property Projects Manager to oversee new-build projects, together with the continual updating of dealer retail premises and the CLAAS UK site at Saxham.

### CLAAS support Jimmy's Farm

CLAAS UK is delighted to support Jimmy's Farm and the work Jimmy and his team do to promote British food and agriculture. The loan of a new ARION tractor and SCORPION telescopic handler were gratefully received by them earlier in October.

**MANNS** delivered the new ARION 530 and SCORPION to the farm near Ipswich in Suffolk, which has become a major visitor attraction in the area.





## CLAAS tractors set new fuel efficiency standards

When it comes to fuel efficiency, there is nothing to beat the latest CLAAS tractors – and that's official.

For CLAAS, the overall running cost, including fuel consumption, is an important element when designing a tractor. The success that they have had in keeping fuel economy to a minimum but not at the expense of performance has been highlighted in DLG tests, where the AXION 950, 'Tractor of the Year' AXION 850 and the ARION 650 have all set new standards.

Leading the pack is the top-of-the-range AXION 950 which achieved a unique double by not only recording the lowest fuel consumption of any tractor in its class, but also recording the highest pulling power of any conventional wheeled tractor tested.

Across all seven tests, the 410hp maximum power FPT engine achieved a PowerMix average of just 249 g/kWh with 20 g/kWh of AdBlue, which is a massive 15% below the 295 g/kWh average from all tractors tested. This in itself is quite an achievement, but then the Dynamometer recorded 376hp at maximum power under full load whilst using a miserly 222 g/kWh, which again is way ahead of other tractors in the league.

Not to be out-done, when its turn came, the smaller AXION 850 showed that it can achieve just as impressive statistics. With its FPT engine developing 246hp at rated speed, rising to 260hp at maximum power, the AXION 850 recorded an overall Powermix fuel consumption total of just 248 g/kWh with 22 g/kWh of AdBlue, some 12% less than the old AXION range, which in itself was one of the most fuel efficient tractors tested by the DLG.

Determined not to miss the party, the ARION 650 also set new standards in its class, with the non-AdBlue DPS engine on the ARION 650 returning a PowerMix average of just 272 g/kWh.

	Max power(hp)	Dynamometer full load test					PowerMix tests															Total DLG average PowerMix
		Rated PTO power(hp)	Fuel consumption at rated PTO power (g/kWh)	Max PTO power (hp)	Fuel consumption at rated PTO power (g/kWh)	Plough			Cultivator			Power harrow			Mower			Baler				
						Engine rpm	Total power	Fuel consumption g/kWh(AdBlue)	Engine rpm	Total power	Fuel consumption g/kWh(AdBlue)	Engine rpm	Total power	Fuel consumption g/kWh(AdBlue)	Engine rpm	Total power	Dynamometer full load test	Engine rpm	Total power	Fuel consumption g/kWh(AdBlue)		
AXION 950	410	361	236	371	222	1410	257	247 (24)	1853	302	262 (20)	1669	307	227 (20)	1653	307	234 (22)	1894	211	284 (18)	249	
AXION 850	264	224	226	242	216	1407	171	247 (22)	1801	198	249 (21)	1663	198	227 (19)	1636	198	239 (20)	1548	135	268 (23)	248	
ARION 650*	184	156	249	166	238	1319	108	267*	1671	127	269*	1797	140	245*	1765	135	256*	2019	94	323*	272	

\*650 is fitted with a DPF so does not use AdBlue

## TractorTimes media survey

In an age of 24/7 news via tweets, blogs and websites, to gain a better idea of how our customers obtain their news and information, we ran a Media Survey in the last issue of *TractorTimes*, and many thanks to all those who replied. Initial results show that whilst 77% of respondents have access to a computer or portable device, when it comes to news the vast majority still want to sit and read a magazine, with *Farmers*

*Weekly* being the most popular choice at nearly 69%. However, nearly 45% regularly use the internet, with FWi being the most popular site visited and a large number also regularly visit CLAAS dealer websites when looking for used machinery.

Congratulations to the following winners of a case of wine:

- J Gale, Mildenhall, Wiltshire
- M Hopper, Whitstone, Devon
- W Fellows, Moreton in Marsh, Gloucestershire
- C Dakin, Shifnal, Shropshire
- J Powell, Retford, Nottinghamshire
- S Hoyland, Tollerton, Nottinghamshire



Video



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# The NEW JAGUAR 900 Series



## SMOOTHER FEED

New smoother feed in all crops  
New hydraulic tensioning system  
Reduced feed roller vibration  
Improved chop quality  
Higher output in lumpy grass conditions



## V-MAX ULTIMATE PERFORMANCE

Faster and easier to set new blades  
New segmented cylinder allowing different blade configurations  
New lowered shear bar



## FEED INTAKE DRIVE

Rubber mounted for reduced vibration and noise  
New longer chop length range



## NEW CAB

New lighting packages  
New acoustic windows and floor for reduced cab noise  
New CEBIS options



Contact your CLAAS dealer today or call the CLAAS Hotline on 01284 777666.

[claas.co.uk/products/forage-harvesters](http://claas.co.uk/products/forage-harvesters)

**CLAAS**

# Greater productivity from 2015 JAGUAR 900

Following the launch of the new JAGUAR 800 for this foraging season, it is now the turn of the JAGUAR 900 range for which there will be a number of new features and updates for the 2015 foraging season.

One of the main changes is under the bonnet. While all JAGUAR 930 to JAGUAR 960 models will be powered by straight 6 or V8 Mercedes-Benz engines, using SCR AdBlue technology in order to meet TIER 4i emissions regulations, the top-of-the-range JAGUAR 980 and 970 are powered by V12 and V8 MAN engines respectively.

However power isn't everything, it's how you use that power. To keep the engine cool, a new optional feature on the CLAAS 900 range is DYNAMIC COOLING, which uses a variator and belt drive that automatically adjusts the fan speed depending on the temperature of the coolant, hydraulic oil and intercooler. This results in more efficient use of the fan, which in turn reduces power requirement by over 20hp, which can be used for chopping power instead.

A unique feature available on JAGUAR 980-940 forage harvesters, which can help to considerably reduce fuel use, is DYNAMIC POWER. Using DYNAMIC POWER, as the load on the engine varies, for instance when working in lighter crops or lower yielding parts of the field, this is automatically recognised by the engine management system, which will alter the engine power output accordingly over 10 power steps from 272hp up to 510hp on the JAGUAR 940 or 884hp on the JAGUAR 980.

Taking this a stage further, new for 2015 on the JAGUAR 980 and 970 will be DYNAMIC POWER PRO which enables the operator to use CEBIS in order to adjust the power steps dependent on the conditions they are working in.

A new feature within the JAGUAR 900's chopping system for 2015 is a hydraulic tensioning system that acts upon the rear precompression roller. Unlike a spring based system, this has the benefit of ensuring that a constant pressure is maintained on the material flowing into the forager regardless of crop density, with the result that a consistent chop quality is maintained and output increased, especially in thick or lumpy conditions.



Changes to the feed roller drive system mean that COMFORT CUT infinite chop length adjustment is possible across the entire chop length range from

5mm up to 26.5mm (with a V-MAX 20 chopping cylinder). The feed roller drive pump and motor are also now mounted on rubber bushes, which reduce vibration and noise.

In other updates to the chopping system, the V-MAX chopping cylinder also now features a new segmented mounting system for the blades. This not only makes it quicker and easier to change and set the blades, but also means it is simpler to change blade configuration.

To cope with the higher throughput resulting from the new hydraulic tensioning system, to ensure a high level of crop processing is maintained, a new MULTI CROP CRACKER M (MCC M) is also now available on JAGUAR 960-930 models and also all the JAGUAR 800 range. This incorporates 200mm diameter rollers that are supported on new heavy duty bearings within a new strengthened housing.

The drive to the MCC on all JAGUAR 900 series machines uses a new maintenance-free hydraulic belt tensioning system to ensure that maximum power is maintained. In the event that the CORN CRACKER needs to be completely removed, the JAGUAR's side panel can now be swung open through 90 degrees, making access to the cracker unit far easier and enabling it to be quickly and easily removed. The accelerator has also been updated and now features new heavy duty bearings and pulleys.

Other new features include:

- Taller front and rear tyre options
- Noise reducing glass in the cab
- Updated version of CEBIS which is easier to use
- Night mode in CEBIS with quick access HOTKEY
- More adjustment parameters for the knives and shearbar
- Larger fuel tanks for greater daily output
- A new 375 litre capacity additive tank with application rate determined by throughput, moisture content or dry matter content.

## New TUCANO for 2015

First launched in 2008, a new TUCANO range has been introduced for 2015. While remaining true to the principle of providing arable growers with an alternative to the LEXION, the new TUCANO does however draw upon that range for some of its new features in order to further boost output and productivity.

The new TUCANO is available in three ranges with a total of six models. Topping the line-up will be the new TUCANO 570 which is fitted with an APS HYBRID threshing system. The four-model TUCANO 400 range uses the APS system in combination with straw walkers, whilst the TUCANO 320 has just a single conventional drum and straw walkers.

### TUCANO 570 – 320

TUCANO	570 HYBRID	450	440	430	420	320
Threshing mechanism / width	APS / 1580 mm	APS / 1580 mm	APS / 1580 mm	APS / 1320 mm	APS / 1320 mm	Conventional 1320 mm
Residual grain separation	ROTO PLUS	6 straw walkers	6 straw walkers	5 straw walkers	5 straw walkers	5 straw walkers
Grain tank volume (litres)	9000	9000	8500	8000	7500	6500
Discharge performance	105 l/s	105 l/s	105 l/s	90 l/s	90 l/s	90 l/s
Maximum engine capacity (ECE R 120)	354 HP	313 HP	286 HP	286 HP	245 P	245 HP

From the outside, the most notable difference is the appearance of the new TUCANO range, which more closely follows the LEXION, especially with the adoption of a 'top-pivot' type unloading auger. The main benefit of this is an increase in loading height and discharge speed, which is now about 30% higher and on the new TUCANO 570 HYBRID means that its 9,000 litre tank can be emptied in less than two minutes. This also means that longer discharge augers are now available, plus it makes access for servicing far easier.

The new TUCANO is powered by a Tier 4 compatible Mercedes-Benz engine, with the exhaust gasses treated using selective catalytic reduction (SCR) and exhaust gas recirculation (EGR). Fresh air for the engine is drawn in through a rotating radiator screen and active pre-separation ensures that fewer particles get into the two air filters.



For difficult or hilly conditions, a new 4-wheel drive axle is available, which uses two central hydrostatic motors integrated into the axle and provides 30% more traction.

As previously, the new TUCANO can be used with the complete range of CLAAS cutterbars, including the new VARIO and CERIO models, which are quickly mounted using the simple multi-connector.

On all the new TUCANO models, the concaves are now electronically adjusted using CEBIS and incorporate a hydraulic overload device. The concave is hydraulically pre-tensioned and opens as the pressure increases, after which it returns automatically to the set working gap.

Unlike the TUCANO 470 which just had six pre-set rotor speeds, the rotor speed on the new TUCANO 570 HYBRID can be infinitely adjusted over a speed range from 480 to 920 rpm, which is set using CEBIS and adjusted totally separately to the APS rotational speed.

This gives the operator far greater control over grain separation and straw quality, especially if the straw is to be baled. The ROTO PLUS rotor also features mechanical 'bomb door' adjustment. Using a lever on the left-hand side of the combine, the first and second concaves can now be closed independently of each other. In damp conditions, the large separation area can be better used to achieve improved separation of harder to remove grains, or in very dry conditions both concaves can be fully opened for maximum throughput.



Another new feature on the TUCANO 570 HYBRID is the electrically operated rotor guide plate, which is controlled using CEBIS and allows the operator to quickly and easily ensure that residues are fed centrally into the straw chopper. In addition, the straw chopper is now automatically engaged electro-hydraulically when the straw plate is folded back.

Other new functions within CEBIS include automatic crop settings, with default settings for over 35 different crops. The operator can also then save their own settings for different crops or varieties, which can be called up at any time. In addition a rear-view camera can also now be integrated into CEBIS.

All the main operating and cutterbar functions are controlled using either a multifunction joystick control or the new CMOTION ground speed control lever. From the seat, the operator can also easily monitor the grain tank level and the

quality of the crop through a wider, centrally positioned grain tank window. The grain tank lids are also now opened and closed electronically using a switch in the armrest.

All the new TUCANO models can be used with the full range of CLAAS steering systems, using either the latest S7 terminal or more advanced S10 terminal, which can also be used to monitor up to four cameras. As an option, the new GPS PILOT FLEX steering wheel is also available, controlled using the S7 terminal.



# In a completely different league

Until a couple of years ago, Wyle Farming's arable area extended to just 154ha, complementing the 60-head suckler herd and beef finishing enterprise.

At that stage a CLAAS DOMINATOR 98 Classic could comfortably cover the acreage but changes in contract farming agreements saw the cropped area climb to 223ha and the 16-year-old machine was then pushed to its limits.

"The DOMINATOR was our second 98 – in over 25 years neither gave us a single issue during harvest," explains driver Charlie Oram.

"But the old girl was stretched at 550 acres and, having done 16 years loyal service, we felt we were probably pushing our luck in the reliability stakes. So last year we trialled a few different coloured machines just to see what was out there. But knowing the reliability and build quality of the CLAAS product we could see that there was no benefit in considering anything else so we ordered up a new TUCANO 430 with 6.0m VARIO header."

"We wanted to stick with a straw-walker machine as straw is so valuable in this area. But we needed to up capacity to ensure we were cutting crops at their driest. With the old DOMINATOR we would be doing 12 hectares on a good day. The 430 takes us up closer to 20 hectares a day."

"The TUCANO is a huge step up for us – it's in a completely different league. The cab has so much room and the seat is unbelievably comfortable. The armrest just cradles your wrist so that the joystick just falls naturally into your hand. Being able to alter everything from sieve settings to concave clearance through the CEBIS computer is a revelation, although we've found the standard CLAAS settings are pretty much spot on and we only have to make minor tweaks through the day. It also means we can get an accurate picture of output and how much crop we've got left to cut."

"The straw chopper is really well designed. There are no belts or panels to mess with - it just swings into and out of work. The chaff spreader should be a big bonus in helping to avoid striping as well."

"The whole machine is just well thought-out. It's the little features like electric grain tank lids, the in-cab returns window and the on-board compressor to blow off at the end of the day that make it so good."

"The 6.0m VARIO header has proved a revelation in rape – I just push the cutterbar out and the crop feeds in pods-first without wrapping or bull-dozing. But even in cereals it's a dream. The auto-contour follows the ground faultlessly and the auto-reel speed feature is brilliant in matching forward speed. Better than that, having the reel automatically dropping down as you lift the header to scoop the last of the crop in means you don't miss an ear."



Charlie Oram

"The header is a lot wider than we've been used to and we were concerned about grain trailers over the bigger swaths, so we opted for the extra long unloading auger. It means the tractors are kept miles away from the header and because they're up against the far side of the swath, they don't tend to drift."

"Our past experience with the DOMINATORS has proved the reliability of CLAAS kit and we get really good back-up from **MILL ENGINEERS**. We know CLAAS combines hold their value well which is very important because we need to know that it won't be horrendously painful next time we come to change."



# Effortless combining

Having a new LEXION 670 MONTANA to harvest 400ha of cereals could be considered overcapacity, but when farming in Donegal in the north west of Ireland, weather is a major consideration.

Having run a rotary combine since the late 1980's, Liam Robb has made the change back to a straw walker combine for a number of reasons, mainly due to the weather and the fact that with good quality straw in high demand in the area, straw tends to dry quicker in the swath. Also he adds that when it comes to eventually changing the LEXION, there will be greater demand for a straw-walker machine within Ireland.

"We are overcapacity with all of our machinery, but it is bought to beat the weather," explains Liam. "We tend to get a lot of broken weather and showers that just keep rolling in, so if there is the opportunity to go we have to make the most of it."

Farming over a mix of owned, rented, share and stubble to stubble contract farmed land spread over four farms around Newtoncunningham, winter and spring feed barley accounts for about 80% of the crops. The rest is down to winter wheat, spring oats and spring oilseed rape, which is cold pressed for cooking oil by Donegal Rapeseed Oil, who have won numerous awards for their high quality oil.

Prior to making the change back to a straw-walker combine, Liam looked at a number of different machines, but opted to go with CLASS on account of the build quality and the deal offered by **ERWINS**, who recently opened a new branch nearby.



Liam Robb

Liam says he found that changing from a combine with a single rotary drum back to one with straw-walkers, that they are totally different machines in the way they have to be set-up and operated. However the ease with which the LEXION can be set-up and driven using CEBIS has been a major benefit.

"Not having used CEBIS before, the set-up is relatively simple and once you are familiar with it, it's grand. The pre-programmed crop settings in CEBIS make it really easy and as they are not that far out, you can just press a button and go."

But it is the MONTANA self-levelling system which has really impressed Liam. "I went in blind, because having used a rotary, hills have never really been an issue. Before having the MONTANA, if you asked me how many hills we have, I would have said that the farm was actually relatively flat and that there were only about five or six fields with hills."

"But when you watch the MONTANA working, it's surprising how much levelling it does do, especially on one farm, and there are certainly a few fields where it was working to its limit. The MONTANA does an amazing job, but it is so effortless. It's all so smooth you just don't realise that it's working until you look at where the cutterbar is in relation to the combine. The MONTANA levelling system, in combination with the VARIO and AUTO CONTOUR, is brilliant and a number of straw buyers have commented on how even the stubble is."

"The LEXION is such a comfortable combine to drive. I have been surprised by how much I ended up altering the knife distance with VARIO, but it certainly helps smooth the flow into the combine. Also having LASER PILOT allows me to just concentrate on the settings, and its things like this that make the LEXION so easy to use."



## New VARIO and CERIO cutterbars

The first in a new generation of VARIO and new CERIO cutterbars for both the TUCANO and LEXION combine ranges have been introduced, incorporating a number of innovative new features. In addition, a new 12.3m version of the VARIO is now available, designed for use within Controlled Traffic Farming systems.

### VARIO 930 and 770

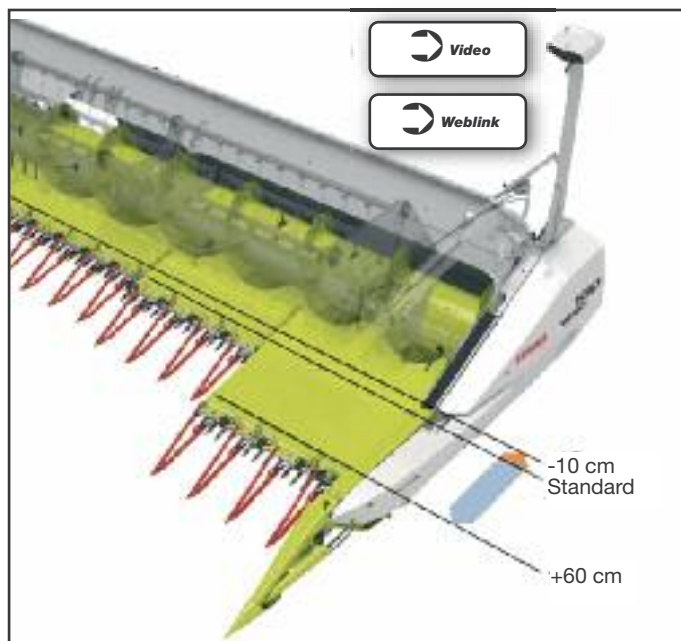
Initially two new VARIO cutterbars will be available, the 9.3m V930 and the 7.7m V770. These replace the current VARIO 900 and 750 models so offer both a slightly wider working width but also far greater functionality.

On current VARIO cutterbars, the knife can be adjusted over a range from -10cm to +20cm for cereals and up to +50cm for direct cutting oilseed rape using manually fitted filler plates.

On the new generation VARIO 930 and 770, thanks to the new integrated rapeseed plates, the knife can now be infinitely adjusted over a range from -10cm to +60cm. This saves considerable time and allows infinite knife adjustment over the full 70cm range. Even when the rapeseed plates are in place, the knife can still be adjusted over a 20cm range.

The new design also means that side-knives can be easily fitted in a matter of minutes without needing to use tools. Once connected using two flat-sealing couplers, the hydraulic pump is automatically activated to drive the side knives and the distance the knife can be retracted, avoiding the side knives clashing with the reel drive.

To minimise losses, additional panelling has been added to the right hand side of the cutterbar and the knife and reel-end positions are also transmitted automatically to the combine.



### New CERIO cutterbar

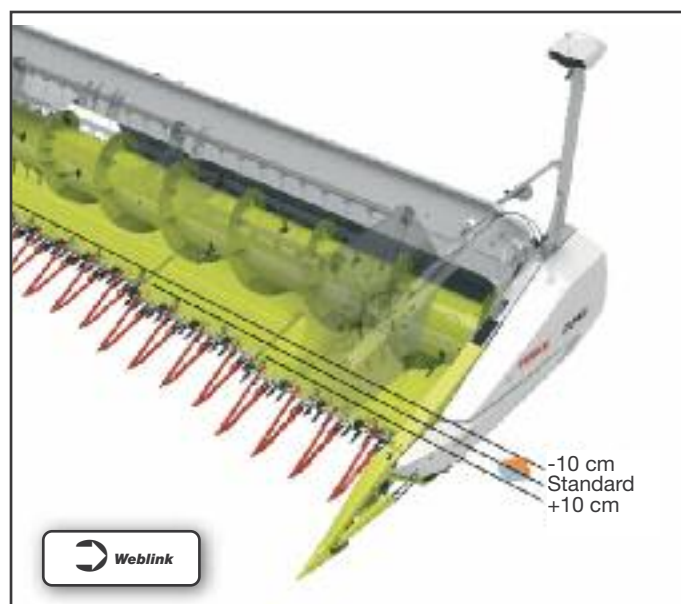
The new CERIO cutterbar is designed to provide many of the benefits of the VARIO, but at a lower cost. Two models will initially be available, the C930 and C770.

Designed for use with cereals, the knife distance on the CERIO is manually adjusted, with five possible positions available over a range from -10cm to +10cm in order to maximise crop flow. To alter the knife distance, 10 bolts are simply loosened which then allows the knife to be pushed in or out.

In most other respects the CERIO cutterbar is very similar to the VARIO, using the same frame, intake auger, drives and reel.

Other new features across all four VARIO and CERIO cutterbars include:

- A wider diameter intake auger, which has been increased by 16% to 660mm to allow greater amounts of straw to easily flow into the combine
- The intake auger and the knife are now mechanically driven via a gearbox and shaft
- Wear-resistant bearings on the reel
- Exterior adjustment of the stripper bars
- An angled top beam to provide the operator with a better view into the cutterbar
- LASER PILOT units can also now be folded and adjusted without tools
- Automatic return of the cutterbar to the 'park' position at the press of a button.



### New VARIO 1230

To work within a 12m Controlled Traffic Farming system, CLAAS has introduced the new VARIO 1230 cutterbar which has a cutting width of 12.3m.

The new VARIO 1230 features a split reel and a linear driven knife with a cutting speed of 1344 strokes a minute, driven from each side of the cutterbar. The crop is fed to the centre of the cutterbar by a 660mm diameter auger and for improved contour following, the cutterbar is fitted with six AUTO CONTOUR sensor bands instead of four previously.



Andrew Gentle

put the side knife on. Changing to rape is just a five minute job instead of taking half an hour. Having the direct drive instead of belts is another great improvement, because there is a lot less to go wrong and no loss of power in thick crops.”

“Having the ability to alter the knife over a greater range, means it is far easier to get the flow of material into the combine right. If you get that right, then the flow into the drum and on through the combine is a lot better.”

“We cut a vast range of crops and the ability to easily adapt to what is in front of you makes it far easier and losses at the header have definitely been reduced. Peas can often be flat to the desk, but the ability to bring the knife right in and flick them up is great. Lupins can often be very difficult and late, while the beans had pods right down the plant, so again having a wide range of adjustment made it far easier to harvest them.”

However, it is not just when harvesting that Andrew has found the VARIO far easier to use. When moving, the ability to automatically return the cutterbar to the ‘park’ position at the press of a button, even with the side knives on, so that it is in exactly the right position for putting on the trailer is far easier and quicker.

Compared to their previous TUCANO 480, which Andrew says used to average about 22ha a day, the new LEXION has been nearer 24ha. “Some of that is definitely down to the new VARIO and the ability to optimise the flow into the combine. But I can see that in a more average year the difference will probably be even greater, as this year we have been slowed down because there have been some big crops, with wheat’s yielding up to 12 tonnes in places.”

## A boost to crop flow

The wide range of crops harvested by G Gentle & Sons has made them the ideal people to assess the latest generation of VARIO cutterbars, using a V770 on their new LEXION 650 combine, bought through **SOUTHERN HARVESTERS**.

All of the Gentles’ 500 hectares of owned, rented and stubble-to-stubble contracted land near West Wittering in Sussex are down to arable crops, growing milling and soft wheat, oilseed rape, marrowfat peas for canning and pre-basic and basic lupins. In addition, they also contract combine other crops including barley, beans and oats.

“I have been really impressed by the new VARIO,” states Andrew Gentle who operates the combine. “The big thing is the fact you no longer need to fit filler plates and it’s so simple to

## CERIO cutterbar impresses



In Scotland, contractor Brian Paxton has been using a pre-series CERIO 770 on his new LEXION 670TT bought through **GORDONS** for this harvest. From his base near Stranraer, Brian runs four combines, which harvest up to 1600ha of crops depending on the season and the amount cut for whole crop.

Cropping in the area is mainly spring barley, along with winter wheat and barley, plus a small amount of oilseed rape and an increasing amount of beans. Having been very pleased with the CERIO’s performance compared to the AUTO CONTOUR cutterbar, he says he may well specify the CERIO in the future as combines are replaced.

“The CERIO worked extremely well in wheat. The bigger diameter auger could be run slower, and the knife distance could be altered so that the crop all flowed head first into the combine, meaning that the flow through the combine was far smoother and I am sure helped increase outputs,” he says.

“It’s having the choice of being able to alter the knife distance by crop or for longer strawed varieties which is so great. Even in oilseed rape to just be able to push the knife out as far as it would go made a difference and to change it back again for



spring barley only took about half-an-hour, but it does make a big difference over a day’s work and crop losses at the header, especially in beans, were virtually nil.”

Each year about 400ha of crops are cut early at 35% for crimping, which provides an early start, and now with the increased interest in beans, this also helps spread the workload at the other end of the season.

“The CERIO followed the ground really well and the new shaft and linear drive to the knife is a considerable improvement, especially in damper crops. Overall I have been delighted by the LEXION 670. It has gone very well and things like the ease of maintenance, speed of unloading, highly responsive hydraulics and the new design for the grain tanks lids all make a big difference,” concludes Brian

## New TELEMATICS packages

CLAAS leads the way in the use of TELEMATICS for machinery monitoring and data gathering. For 2015, not only will the new TELEMATICS website and apps be fully available, but a number of TELEMATICS packages will be available to better meet individual needs.

The TELEMATICS website has been completely redesigned. A key aim of the site is that it should be intuitive to use. To enable this, TELEMATICS enabled machines are now displayed on the dashboard, allowing instant access to operational data and information.

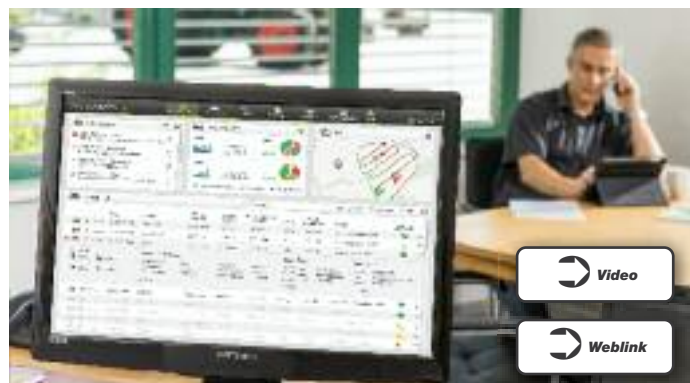
As part of this expansion, TELEMATICS will be available as standard, with an integrated SIM card, not only LEXION and TUCANO combines and JAGUAR foragers, but also XERION and AXION 900 and 800 tractors.

### Basic, Advanced and Professional TELEMATICS

Three new versions of TELEMATICS will be offered - Basic, Advanced and Professional, which differ in terms of functionality and price.

The Basic version will provide information on the machine position and status and also displays this data in the TELEMATICS app. In addition, it also includes all the service functions, such as remote diagnostics. This package is therefore ideal for users who do not want to work intensively with the system, but who nevertheless want to use the basic functions such as navigation of the machine via the app, and who attach importance to an improved service.

The Advanced version will add to this all the available machine data and displays a range of additional calculated key process figures. This package is designed for live use and for monitoring and optimising current processes, and therefore includes all of the app functions.



The full professional version of TELEMATICS offers unlimited data history, such is currently available, which allows comprehensive data analysis in order to optimise use of the machine over prolonged periods. In addition, there is a range of analyses for specific questions and optimisations.

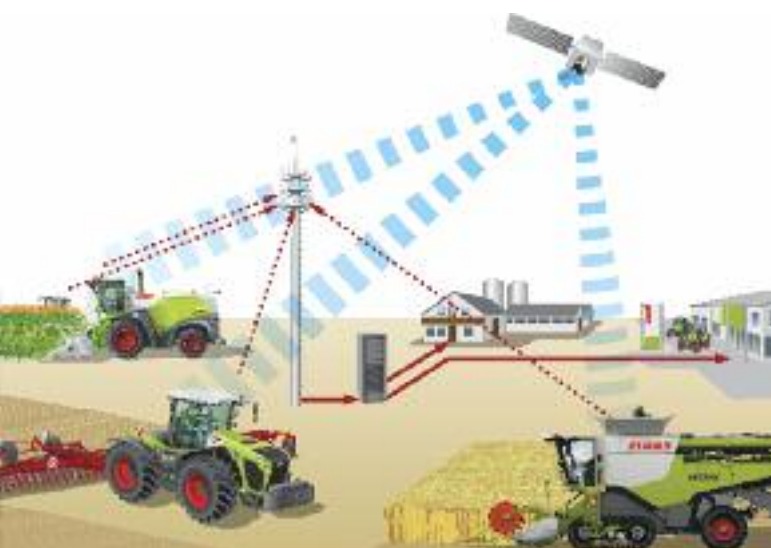
### APDI

An important new feature of TELEMATICS is the APDI automatic documentation which is available with any of the three packages. APDI generates fully automated field-related documentation of all work based on the field boundaries, tracks and machine data. The driver does not need to carry out any actions or spend time on pre-planned jobs, and their workload is therefore significantly reduced. The documentation can be printed or exported into the field catalogue as an ISOXML file.

### TELEMATICS on Implements (TONI)

In addition to the tractor machine data, TONI makes it possible to also document, evaluate and optimise the data from implements. To do this, the user not only requires a TELEMATICS-compatible tractor but also an ISOBUS-compatible implement which also supports the TONI functions, such as the QUADRANT baler.

In order to make TONI more widely available, CLAAS is also working with other implement manufacturers, including Amazone, Fliegl, Grimme, Horsch and Lemken.



## 365FarmNet

The internet and the gradual roll-out of high speed broadband is opening up a wealth of opportunities for agricultural businesses and suppliers to interact in ways never possible before.

CLAAS is one of eight companies involved in the development of 365FarmNet, a new, unique and independent web-based management system that will cut out a lot of the time and effort needed to maintain operational records.

Because the system is browser-based, 365FarmNet can be used on virtually any computer or mobile device. Once basic data, such as field records, have been entered on the

# It works. It's efficient. It's easy

Information is the key to efficiency and in this respect James Thompson of Beeswax Farming considers TELEMATICS an essential data tool to help him oversee the whole of the company's harvesting operation.



James Thompson

With two LEXION 780s and a 770 harvesting nearly 3,800ha of crops, TELEMATICS not only provides James and his team with vital information that is used both on a day-to-day basis, but also for longer term planning. This has therefore made Beeswax Farming the ideal users to 'test drive' the new TELEMATICS website.

"TELEMATICS is an essential management tool for me and the farm managers to see the efficiency of the harvesting team, identify any problems and most importantly record what goes on. Using the data we can identify where potential inefficiencies may arise as the business grows."

One area where TELEMATICS is particularly useful is in helping manage harvest logistics, especially when moving farms. "The three combines operate as one team, so the logistics chain when we move is vast," says James. "Apart from the three combines, there will also be everything that supports them. By using TELEMATICS, we can see exactly how much the harvesting team has left to cut so that we can start forward planning the move, which can help save a considerable amount of time."

"The important thing is that on this scale and

over long distances the information capacity of TELEMATICS is second to none and it has proved to me that you can see the small advantages. By having TELEMATICS productivity is a lot higher, with the result that each combine is averaging 4.61 to 4.96 hectares per hour over their working life here."

With three combines to monitor, one of the most important features of the new TELEMATICS site is therefore the speed with which James can access machine data and this was one of his bugbears regarding the old TELEMATICS site.

"The old site had got unwieldy. It was difficult to navigate and you had to go through a lot of layers to access and interpret information. The new website on the other hand is not a step in the right direction – it's a man leap it's so different. It works. It's efficient. It's easy to understand and most importantly you can quickly get out the information that you require."

"The dashboard is clear and simple and when you log-on, having the actual machine there is far better than having to



system, the user can then use various apps from the member companies to precisely plan and record field operations, and machinery actions for every operation from initial cultivations through to harvesting. A wealth of other data, such as the latest weather, or pest and disease predictions, will also be available.

Users will only pay for the apps that they use and the highest level of data security will ensure that no data can be seen without the user's consent.

365FarmNet will considerably reduce the amount of office time needed to update and maintain essential Red Tape records and paperwork. Being web-based, it will avoid having to buy and learn to use multiple software packages and allow full transparency at the press of a button.

navigate to it. There is a good level of information immediately there and in just one click I can get all the other information I need. It's also very intuitive," states James, who also accesses the website using his iPhone and iPad.

Another feature that Beeswax is starting to use more is APDI (Automatic Process Data Interpretation), which automatically transfers working data to the TELEMATICS server.

"We are currently in the process of mapping all the field boundaries and setting up A-B lines using Gators equipped with RTK. This means that in future, with APDI as soon as the combine enters the field it will instantly know where it is, where the A-B line is and what crop it is in," explains James. "We will start to use APDI across many other operations, and I can see that within three years all the key machines will be using some form of TELEMATICS."



Wayne Rose and Nick Bumford

## Grain sample transformed

With heights ranging from 650ft up to 980ft and without a single flat field over the 1200 hectares they farm near Stow-on-the-Wold, Gloucestershire, Guiting Manor Farms turned to technology in order to help boost output when it came to changing their combine for this harvest.

“It’s easy to get a good, consistent sample on dead flat fields,” states Farms Director Nick Bumford, “but we have everything from nursery slopes upwards. Whilst the very alkaline soils can be quite productive, humidity rises the higher you go and that, combined with the volatile weather conditions we have had over the last few summers, has put us under a lot of pressure to be able to harvest crops when they are at their best in order to maximise yield potential.”

Having tried four different combines last harvest, Nick and combine operator Wayne Rose opted to stay with CLAAS and replace their five-year old LEXION 580TT with a LEXION 770TT with a VARIO 1050 cutterbar, supplied by **MILL ENGINEERS**. In order to maximise performance, among the options added to the combine were CEMOS AUTOMATIC, TM6 sieves and

GPS steering, using the latest S7 terminal with Auto Turn connecting to the farm’s own Topcon RTK mast.

“The output from the combine has been impressive but the sample has been superb,” comments Wayne. “I have always struggled in barley, especially with losses over the sieves, and in oilseed rape, so this was one of the main reasons for having CEMOS AUTOMATIC. The JETSTREAM airbox and the TM6 sieves have also made a great difference, especially in barley and on slopes. I never once had to get out and unblock the returns.”

“The RTK steering has also transformed the whole operation. The productivity is fantastic and it gives me time to just concentrate on setting the combine up properly and to try different settings.”

With CEMOS AUTOMATIC set to ‘Balanced’ in order to maximise throughput, fuel consumption and grain sample, the new LEXION 770TT has maintained a steady throughput of about 55 t/hr with peaks up to 70 t/hr, but it is the improvement in sample which has really set the new LEXION 770 apart.

“The wheat and barley samples have certainly been better, but the biggest difference is in oilseed rape where we just don’t get the amount of rubbish that we used to and losses have been minimal,” says Nick. “The knock-on benefit is that there is far less rubbish going through the drier and cleaner, which cuts the fire risk and there is hardly anything in the dust box.”

Like other experienced combine operators, Wayne has at times been surprised by some of the settings used by CEMOS AUTOMATIC, but they obviously work. Whilst he says that there are times during the day when he can beat it, consistently over a whole day CEMOS AUTOMATIC will always be better.

“CEMOS AUTOMATIC has enabled me to achieve the sample I have always been trying to get, but have never so far achieved!”

A combination of CEMOS AUTOMATIC and RTK steering using an S7 terminal has helped Guiting Manor increase output and sample quality (Photo: Richard Newstead).



 Video

 Weblink



## Narrow width manoeuvrability

Changing from a LEXION 570TT to a new narrow bodied LEXION 760TT has helped J P F Clay increase output over their 700ha of crops. As importantly, its narrow 3.3m width means it is ideal for negotiating local narrow lanes which are only 3.5m wide in places.

The new LEXION 760TT has a VARIO 1050 cutterbar and been fully specified with CEMOS AUTOMATIC, CRUISE PILOT, GPS steering using an S7 terminal and TELEMATICS in order to maximise output.

“With the LEXION 570 you could push it to spot rates of about 55t/hr before it started throwing grain over the back, but with the LEXION 760 I am now getting spot rates as high as 90t/hr,” states farm manager Mark Wood. “The other noticeable difference is how much less fuel the LEXION 760 uses with the engine running at 1920rpm. It’s at least 15% less and of course you are also putting more through the combine.”

“The combine definitely needs the VARIO 1050 to keep the forward speed down. Having GPS steering not only ensures you can make the most of the extra width, but also means you can concentrate on other things. The S7 terminal is so easy to set-up and use. Because of all the woods and valleys, I am using both Egnos and Omnistar, which proved very reliable and over 100 fields, I only lost signal once.”

Mark also believes that CEMOS AUTOMATIC is essential if the combine’s output is to be maximised, and he has been extremely impressed by how well it has worked and how good grain quality has been in what was a difficult harvest.

“It’s been a very catchy harvest and around here rape was particularly difficult. CEMOS AUTOMATIC takes away the need to remember to keep changing your settings. It just gets on with it and quietly keeps adjusting itself without you realising its running. The sample in both wheat and rape was very good in what was an extremely difficult year.”

“Overall we have been extremely impressed with the LEXION and its performance. I did look at other machines, but one of the reasons for choosing the LEXION was price, as it was cheaper, but also the track system. It’s very simple, but also the LEXION is specifically designed for use with tracks, which I am not sure that the others are. The service from **MORRIS CORFIELD** has always been extremely good too over the six years that we have run CLAAS combines.”

Mark Wood has found the new S7 terminal easy to use and set-up.



## S10 - a complete terminal

The new S10 terminal is not only used for setting up and operating the tractor's GPS steering, but also as an ISOBUS control terminal or a monitor for up to four cameras, making it extremely versatile. The added advantage of also being able to use it on tractors other than CLAAS just adds to its flexibility, states William Withers of WJ Contractors.

“The S10 is basically a complete tractor terminal and its good it can be used on any tractor. We don't have a CLAAS, but it's still fantastic so I reckon it must be brilliant when used with a CLAAS tractor,” states William. “For instance the tractor does not have ISOBUS, but by having the S10 it is now ISOBUS ready for any future implements.”

“Over the last couple of years it has been noticeable that the CLAAS RTK signal has been getting quicker and quicker,” comments his business partner Ross Joyce. “The S3 would typically pick up about 8 or 9 satellites, but with Glonass the S10 most days is picking up at least 13 or 14.”

“Most of the time we pick up signals from either Lincoln North or Newark, and sometimes South Yorkshire, but it's great that the S10 will just automatically pick-up the strongest signal, you just don't know it's doing it. The higher signal strength means that even when you do lose signal its back very quickly. And

having the back-up of Glonass and Egnos, even if there is no RTK signal we still get good coverage.”

“At £450 for the year, the CLAAS network through **MARSH** is very good value,” adds William. “I like the fact that there is no limit to which mast we get a signal from, so as we start to get more jobs further afield, we will still be able to get a good signal.”

As contractors, the ability to quickly and easily set-up A-B lines and to record and store all the data for future use is invaluable. But it is also the other functions that make the S10 so flexible.

“The Auto Turn function is fantastic and for a job like drilling its ideal as the ins and outs are dead straight and perfect,” comments William. “The ability to run four cameras, and not just CLAAS cameras, is also good.”



William Withers (left) and Ross Joyce

## Easy to use S10

A combination of the new S10 terminal and the change by CLAAS to using a new high speed data system for its RTK network has significantly boosted both coverage and consistency for contractor Paul Lakey, who is based near Holbeach in Lincolnshire.



Paul Lakey

The ease with which the new S10 GPS steering terminal can be set-up and used compared to his previous S3 terminals is a considerable improvement, states Paul who has been using GPS steering for the last five years.

“The old S3 was good, but whether it was due to the nearby RAF bombing range or other reasons, we did have problems with getting a consistent signal. But that is not unique to just CLAAS and their RTK signal, and in many villages around here you can struggle to even get good mobile phone reception,” states Paul.

The S10 terminal is used on a new AXION 830 CEBIS and sources an RTK signal through local CLAAS dealer **MARSH**.

“The new S10 terminal is excellent – it's a vast improvement on what we had. It's very easy to use and the functions are far

simpler to set-up than on the S3. The reaction time is far quicker and it's very rare that we don't have a signal. We are mainly using a signal from the Massingham mast in Norfolk but if we do need to find another signal it's not an issue. You just press a button and that's it – there's no messing about having to re-programme the terminal or anything like that. With the coverage we now have and the fact that it's not an issue to pick-up another signal, we can now go virtually anywhere, which is a great advantage.”

“What's good is that because it is so quick to react, it always ensures you turn in at exactly the right place. Having the memory for different implements and widths is very good too and it's easy to store and retrieve these settings. And being picture based you can't go wrong!”



Video

Weblink

## The ideal small combine

The small fields and narrow lanes of north Devon are no place for a large combine, making the AVERO 240 the ideal choice for the 160ha of cereals that Paul Kingdom harvests each year.

The AVERO, which was bought new through **HAMBLY'S**, has a 4.9m wide AUTO-CONTOUR cutterbar and has just completed its fourth harvest, cutting both the Kingdoms own crops and those of other nearby farmers.

"The AVERO is a great little combine," states Paul. "Its size makes it ideal for this area, and we have actually picked up work because we could get in where a larger combine couldn't. Virtually everything we cut is used on-farm for livestock feed, so getting a good sample is important for milling. So long as



Paul Kingdom



you keep the speed right, it will comfortably average about ten tonnes an hour with hardly any losses. If I can cut about ten hectares a day, that's a good day by the time you have changed fields."

Paul originally started looking for a used machine, but quickly found that not only were very few small machines on the market, but most were either about 10-15 years old, or were going for quite a lot of money.

"To buy the AVERO new made far more sense and CLAAS were happy to finance it over seven years, which works very well for us as we will hope to keep the combine for at least 10 years."

Paul has been particularly impressed by the 4.9m wide AUTO-CONTOUR cutterbar, which again he says is ideal both for the size of fields he is working in, but also nicely matches the forward speed and leaves a good size swath for baling.

"Everything is baled, so stones allowing I aim to leave the stubble as short as possible. The AUTO-CONTOUR system and 3D sieves work very well – the fields around here slope in every direction and I find that I don't get nearly as much bulldozing as I used to with my old combine. Some of the spring barley was virtually flat, but the cutterbar got under it well. Also the swath that it leaves behind is very good for baling."

## One day harvest

When it was launched in 1966, the CLAAS SENATOR was not only the first combine to use the now familiar CLAAS word style but to also be produced in the recognisable 'seed' green, previous machines having been silver.

One of the noticeable aspects of the search conducted in conjunction with Classic Tractor magazine last year was quite how many SENATORS are still in regular use. One such user is Andrew Hogg, who for the last 16 years has used a 1980 'W' registration Perkins powered SENATOR 70 to harvest the 9.5ha of spring barley he and his son John grow for animal feed on their beef and sheep farm near Langholm in the Scottish borders.

This year, however, the SENATOR was joined by a second 1975 SENATOR 70 with a Mercedes engine which John's brother, also Andrew, who is workshop foreman at **RICKERBY** Carlisle, knew was for sale locally. And with both machines put to work in near perfect conditions on the 19th August, harvest was completed in just one day!

"Apart from the odd bearing and belt, the SENATOR has been very reliable, but I decided to buy this other machine should we ever need any spares. It had been in a barn for the last two years and had a flat battery and tyres, but it still started first time and is in very good condition. So we thought we would give it run and everything was going so well, we just carried on with the two and finished harvest at ten that evening!"

Andrew and John Hogg with the 'new' SENATOR which has had its cab removed so it can get in the barn for winter.



Being in a high rainfall area, with 100 inches of rain a year, and with short weather windows, having their own combine gives the Hogg's the ability to go when conditions are right, rather than having to rely on the availability of a contractor.

With the original SENATOR costing him £1600 sixteen years ago and the 'new' SENATOR costing him just £1350, "that's cheap combining. In a couple of years the combine will have paid for itself," states Andrew.

The two SENATORS are not the only CLAAS machines to be found on the farm, which extends to 140ha, with a further 40ha that is rented. The main tractor is an AXOS 340 which is fitted with a loader and responsible for all the handling work around the farm. The Hogg's also run a LINER 420 single rotor rake and two ROLLANT 250 ROTOCUT balers, which between them each year bale over 1000 silage and straw bales.

# New flexible ARION 400

In recognition of the broad range of tasks that 100 to 150hp tractors are used for, the new ARION 400 range has now been expanded to six models. Each is available in a number of specification and cab options, including a new unique and striking PANORAMIC cab, which sets a completely new standard for cab visibility.

The new PANORAMIC cab features a one piece windscreen, which is joined to the roof pane without a crossbeam. This gives the operator an unrestricted 90 degree field of vision over a front loader.

The ARION 400 is built around a 'wasp waist' design to the bonnet, which allows a tight turning lock for maximum manoeuvrability and has a solid cast frame with integral oil sump. Loader brackets can therefore be bolted directly on to the engine frame and transmission, and a front linkage can be fitted to the front chassis, ensuring maximum stability and ease access for servicing.

## FPT power

The new ARION 400 models are powered by 90hp to 140hp 4-cylinder, 4.5 litre FPT turbocharged and charge-air cooled engines that use SCR technology and a diesel oxidation catalytic converter (DOC/Oxicat) to meet TIER 4 emissions regulations.

The engines have no boost, so provide full power at all times, and are governed using a CLAAS engine management system designed to provide optimised engine performance curves.

## Multifunction control lever

All the main operating functions are controlled using a new multifunction control lever, designed so that all the gearbox functions can be operated using a thumb-operated rocker switch.

Depending on specification, the new multifunction control also incorporates controls for the headland and linkage controls, can be used to operate ELECTROPILOT proportional electronic spool valves, or a front loader in either FLEXPILOT or ELECTROPILOT modes.



For general work, a 60 litres/minute (l/m) open circuit hydraulic system is available, but there is the option of a two-pump 98l/m open centre hydraulic system or a 110l/m load-sensing system with optional Power Beyond.

## Cab

In addition to the new PANORAMIC cab, the ARION 400 is also available with a conventional 6-pillar can. A low-profile cab is also available on the ARION 410/420 with or without a transparent sunroof, which has an overall height to the top of

the cab of about 2.5m on 34 inch tyres, the lowest on the market for this size of tractor.

On CIS versions, monitoring and setting functions such as hydraulic and transmission settings, event counters and the on-board computer to be accessed using a rotary/push switch and an ESC button, with the information displayed on the 'A' pillar.



The ARION 400 can also be used with the full range of CLAAS EASY electronics systems, including TELEMATICS. CLAAS GPS PILOT, S7, S10 and other control terminals can all be easily mounted on a frame above the control console, and the tractor is fitted with cab and rear ISOBUS connections.

The specification also includes:

- 16/16 QUADRISHIFT with fully automatic QUADRATIV on CIS models
- PROACTIVE suspension on models over 90hp
- Three mechanical or four electronic spool valves
- Two ELECTROPILOT or FLEXPILOT controlled spools at front for loader work
- 540/540 ECO or 540/540ECO/1000 PTO with automatic shut-off
- 4.5t (ARION 410/420) or 5.75t (ARION 430-460) rear lift capacity
- 2.8t integrated front-linkage plus 1000 rpm PTO
- Fully adjustable steering wheel





## New versatile ELIOS

The ELIOS has proved the ideal tractor for those needing a compact, lightweight but powerful tractor for jobs as diverse as working in poly tunnels, yard work on livestock farms or for grounds maintenance at sports clubs.

A new expanded range of ELIOS tractors has been introduced, with four models ranging in power output from 75hp up to 103hp.

The new ELIOS has a low overall height to the top of the cab of just 2.37 metres on 380/85R tyres, with a wheelbase of 2.16m, or 3.82m with a folded front-linkage.

### FPT engines

The ELIOS is powered by a 4-cylinder, 3.4 litre FPT turbocharged and intercooled high torque engine. This has a wide constant power range from 1800-2300rpm and is fitted with a visco-fan and a diesel particulate filter (DPF) with automatic regeneration to meet TIER 4i emissions regulations.

The top-of-the-range ELIOS 240 also features CPM (CLAAS POWER MANAGEMENT), giving the 92hp engine an additional 11hp boost in power to 103hp under certain conditions. CPM

is activated when the tractor goes above 13 km/h in gears 2, 3 or 4 in range III or if the PTO speed starts to drop.

A new feature is an engine speed memory, which allows the speed to be adjusted precisely at the push of a button, which will be particularly useful for PTO work, and a second engine speed memory is also available as an option.

Four different transmissions are available. Four-wheel drive models have a 24/24 transmission with optional mechanical splitter and reverser, TWINSHIFT powershift and mechanical reverser or TWINSHIFT powershift with REVERSHIFT clutchless reverser, all of which have a minimum forward speed of just 500 metres/hour. All 2-wheel drive models come with a 12/12 transmission with a mechanical reverser.

The full width cab incorporates a glass roof to enhance the feeling of space and provide good visibility over a raised front loader. The cab specification includes the choice of a mechanically or air-suspended seat, air conditioning with the option of carbon filtration for spraying and an adjustable steering wheel.

The controls are all grouped on the right hand side of the seat. Where a front loader is fitted, this can be controlled either hydraulically using a FLEXPILOT joystick or electronically with the ELECTROPILOT, both of which are factory fitted.

The specification also includes:

- Two or three mechanical or four electric colour-coded spool valves
- Mechanical or electronic rear linkage controls
- 2.6t rear lift capacity with 3.2t option
- 2.8t integrated front linkage
- 59 l/min single pump or 59/26 l/min twin pump hydraulic system



# 200 litre a day fuel saving

By making the change from a high horsepower tracked tractor to a 524hp XERION 5000, Peter Cartwright has not only reduced running costs, but daily fuel consumption has been slashed by nearly 200 litres, and at the same time outputs have increased by 10ha.



Soils over the 1220ha he manages at Revesby Estate in Lincolnshire range from sand to chalky clay and it was the flints in these clay soils which were playing havoc with the rubber tracks. A best, a set of tracks were typically lasting only two years, and at £12,000 a time to replace, plus the cost of also needing to replace all 12 idlers and a service interval of only 250 hours, meant running costs were high.

Peter, who arrived at Revesby in 2011, tries to use minimal cultivations where possible, mainly using a 4.5m Horsh Terrano working at 25cm and fitted with full wings. However, he is prepared to use the plough to help control blackgrass and incorporate sugar beet tops.

"The tracked tractor was fine with the Terrano and could work it at 9kph. However, it did struggle with the plough, especially late in the season. The only way to get grip was to run a track in the furrow, which in itself is not ideal, and we were starting to see plough pans being created."

Having decided to replace the tracked tractor with a wheeled tractor, Peter started the process last autumn of looking at all options on the market, with mixed success.

"Whilst they had plenty of power, the main problem was transferring that power to the ground, and at best they could only pull the Terrano at about 7kph," explains Peter. "It was at that stage that Will Tuxworth at **MARSH** suggested the XERION, which had not been on my radar, and left us the XERION 5000 to try."

"Having initially been not sure about it, first impressions on getting in the cab were how spacious and comfortable it is, and also how good the all-round visibility is. Then when we tried the XERION in the field, it just took off with the Terrano and was so easy to whip round on the headland. We suddenly realised that this would be the right machine, and the ability to easily weight it up for different jobs means it's very versatile. It ticked all the boxes and set the benchmark."

Peter has taken the XERION 5000 on a two-year lease and since it arrived in the Spring, it has continued to impress. One of the most telling differences has been in fuel consumption and has so far averaged just 22 litres/ha. "We have been staggered by the difference. Over a day the XERION is using 200 litres less fuel a day but the Terrano work rates have increased by 10ha."

Working the Terrano at speeds of up to 12kph, fuel use on the XERION has averaged 23 litres/ha, and is as low as 10 l/ha when subsoiling, says driver Richard Cartledge. "At most the XERION is only using about 470 litres a day compared to nearer 700 litres previously."

Whilst it could be argued that at 524hp the XERION 5000 is overpowered for their needs, Peter counters this by pointing out that it is because it's never working at its limit, load on the engine is reduced and hence fuel use reduced.

This has been brought home to him having had a 435hp XERION 4000 on demonstration this Autumn. Whilst it has coped with the Terrano, it's been on its limit and the extra load on the engine is evident in the increased fuel consumption.

"I suspect that we will stay with a XERION 5000 just because its extra power will give us options for the future and will provide us with more timeliness," says Peter. "We have been very impressed with the new XERION, the steering system is good and I think that we will certainly have **TELEMATICS**. We have it on the combine and you need to look at all ways to make savings, and the data that **TELEMATICS** provides is invaluable in helping make informed decisions."

The change to a wheeled XERION 5000 has resulted in fuel savings of around 200 litres a day compared to Revesby Estate's previous tracked tractor.

 Video

 Weblink

# New high density, high output QUADRANT 4000

CLAAS offers one of the most extensive ranges of big square baler on the market, and for 2015 there will be a new addition to the range, the QUADRANT 4000.

The new QUADRANT 4000 produces a bale measuring 0.80 m x 0.50 m and offers 15% more throughput and 10% more bale density compared to the QUADRANT 1150 it replaces.

To achieve these performance increases, the entire drive train has been strengthened. The flywheel and feed rake clutch have been designed for a 30% increase in load and the bale chamber strengthened accordingly.

To achieve this higher density and throughput, the QUADRANT 4000 maintains a powerful 61 ram strokes per minute. The

shape of the baling ram has also been changed so that the bales are evenly and firmly compacted from the centre out to the edge of the bale. This results in perfectly formed, square bales which are stable for transport and storage.

The QUADRANT 4000 comes with a 2.00m wide pick-up and the crop is fed into the baler by 2-phase feed rake system, which ensures an extremely gentle crop pick-up and processing.

The four tried-and-tested CLAAS knotters create a single knot, making it very easy to pull the strings out of the bale. The twine boxes can now be swung out further to enable fast and easy maintenance and cleaning of the machine. The QUADRANT 4000 is also the first square baler in this sector which can be optionally equipped with a central lubrication system.

## New OPERATOR control terminal

The new CLAAS OPERATOR control terminal is used to easily and intuitively operate and monitor the machine. Information such as baling pressure and the bale lengths, and monitor functions such as number of piston strokes per minute, twine breakage and number of bales (daily and total) can all be easily seen. In addition, when sharing machines between users, data records for up to 20 customers can be saved.

## DUOPAC bale stacker

In order to make the most of the QUADRANT 4000's greater throughput and higher bale density, to speed field clearance of the compact 0.80 m x 0.50 m bales, CLAAS has developed the DUOPAC bale stacking wagon. This gently places stacks of two square bales on the field and supports quick and easy field clearing after baling.



## Come and see us at LAMMA 2015

CLAAS UK will again be exhibiting at LAMMA in January 2015, where we will be in the same place as last year, right in the middle of the showground.

In addition to all the new products featured in this issue of *HarvesTimes*, there will be the complete new range of DISCO mowers on display for the first time, plus other additions to the green harvest product range.

But that's no all, there will also be on display the latest ARION 400 and the new ARION 600/500 CMATIC, featuring the unique new EQ200 CVT transmission designed and built by CLAAS.

We look forward to seeing you there!



# Tractor winners

Back in the Spring, a competition was run by CLAAS dealers to win the use of a CLAAS ARION 600 or 500 series tractor for 200 hours.

The draw has taken place and congratulations to all the winners and many thanks to all those who entered. The tractors are all out on farm now and are being put to good use, so we hope to be able to report in the next issue of HarvesTimes on how the winners have got on with their tractors.

So pleased has the **MANNS** winner, Gordon Flatt, been with his tractor, that he has already been in touch. "The ARION is the most comfortable tractor we have even had on the farm," says Gordon, whose daughter Harriet has mainly been using the tractor, but is soon off to New Zealand to drive a LEXION 600 for a large contractor on South Island. "We would certainly consider a CLAAS tractor when we next change a tractor."



The **MARSH** winner is Sam Dore from Glapwell near Chesterfield.



The **MANNS** winner is Gordon Flatt, with daughter Harriet, from Rumburgh in Suffolk



The **OLIVER'S** winner is Alastair Clark from Kimpton in Hertfordshire.



The **SOUTHERN HARVESTERS** winner is TIM MORRIS from Porton Down near Salisbury.

## Executive Board changes

Retiring from the CLAAS Group Executive Board are Dr Theo Freye and Dr Hermann Garbers. Dr Freye has been with CLAAS 34 years and most recently has been the Speaker for the CLAAS Executive Board. Taking over this role will be Lothar Kriszun, who is responsible for the CLAAS tractor division.

Dr Garbers was the chief designer for the LEXION combine range. His place on the CLAAS Executive Board will be taken by Thomas Böck, currently the Technical Director of CLAAS Saulgau. Also joining the Board is Hermann Lohbeck, who will have responsibility for the CLAAS green harvest division and CLAAS Saulgau.



Dr Theo Freye



Dr Hermann Garbers

## New warehouse to serve South Africa

CLAAS and its South African importer Kempston Agri have opened a new distribution warehouse in Port Elizabeth, South Africa.

The new warehouse was opened by Jan-Hendrik Mohr, who is responsible for Sales and a Member of the Executive Board of the CLAAS Group, at a ceremonial evening consisting of music and a traditional South African Dinner.

The implementation of this machinery warehouse focused particularly on the improvement of delivery times. One big advantage is the new location. Delivery times from Port Elizabeth to dealers in the main southern African countries are much shorter than from any other place. Transport routes are shortened and at the same time simplified.

From this new central warehouse in Port Elizabeth, Kempston Agri supplies all 25 distributors in South Africa with CLAAS machines, in addition to the distributors in Namibia, Angola, Botswana, Zimbabwe, Mozambique and Zambia.

The most popular products are tractors from every range starting with the small TALOS up to the big and powerful XERION, but especially the ARION 600 range as well as the AXION 900. However, TUCANO and LEXION combine harvesters are becoming increasingly popular, but the most successful CLAAS products in the southern part of Africa are ROLLANT round balers. In this sector CLAAS holds a market share of 34 percent.



## White Gold

Although most people would be hard placed to locate Turkmenistan on a map, the country (which is on the eastern edge of the Caspian Sea and borders Kazakhstan, Uzbekistan, Afghanistan and Iran) is one of the top ten cotton ('white gold') producers in the world.



The tribal elders from some of Turkmenistan's largest tribal families visiting the new service centre in Mary

Although nearly 95% of the country is covered by the Karakum desert, the remaining area is used for cattle breeding and growing cotton, wheat, vegetables and fruit.

CLAAS has been active in the country for many years, and over 100 AXION 850, ARION 630C and 640 tractors can be

found working there, many of which clock up over 3000 hours a year, along with TUCANO 430 combines.

To support this, CLAAS importer ERDEM has over 50 service technicians based around the country and has a central parts store in the capital Ashgabat with four regional centres, including a new one at Mary. In addition, a training centre for CLAAS machines has also been established at the country's agricultural university in the capital.

## Krasnodar expansion

Work is now well under way on expanding the CLAAS assembly plant at Krasnodar in Russia. Over €100 million is being invested in new manufacturing facilities, which will enable the plant to double combine production from 1000 to 2000 combines a year.



# Winter Service Offers



## What do they include:

- Replacing the engine and hydraulic oil and filters and fuel filters.
- Checking all belts and chains etc. and inspect for serviceability.
- Draining all gearbox oils and refilling as well as the necessary filter changes.
- Checking adjustment of all functional components (concave, etc.).
- Producing a written estimate for work that the engineer deems necessary to ensure your machine will be harvest ready for next year.
- Refitting belts and chains if removed.

Ask your dealer today about the best Winter Service Offer for your combine.

Contact your local dealer for further details on Winter Service Offers.

[claas.co.uk](http://claas.co.uk)

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