THE CASE IH MAGAZINE

NEWS • INSIGHT • ON FARM

1/2017

FARM FORUM

HAPPY BIRTHDAY TO US!
Ready for the next 175 years. **6**

BREAKING THREE WORLD RECORDS

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WE WERE BORN IN THE FIELD 175 YEARS AGO AND HAVE RAISED THE BAR EVER SINCE.

Since 1842, we've been in an endless cycle of innovation. Fueled by a desire to help you squeeze every ounce of productivity out of every acre you farm. After every breakthrough — from the first rotary combine to our autonomous tractor prototype — we've gotten up every day since with a mission to make them better. More efficient. And more productive for you.

Which is why, for the next 175 years, we intend to continue doing the same thing every day.
Rethink Productivity.

FOR THOSE WHO DEMAND MORE

175 CASE IH AGRICULTURE 1842-2017

EDITORIAL

DRIVING PROGRESS ON YOUR FARM

Dear Reader

There isn't a place for it on every farm, but the Quadtrac has a special place for us at Case IH. When we introduced it twenty years ago its articulated four-track design was completely revolutionary, and while 15,000 have since been working the world's fields, we haven't stopped steadily improving on it to meet the practical day-to-day needs on the farm. CVT is another popular technology that we have been developing and applying which brings its own special benefits in terms of productivity and justify of use. So we are really proud to bring these two technologies together for the first time in the new Quadtrac CVX, and we hope you like reading about it here. 175 years ago, when J. I. Case started his Threshing Machine Works in Racine USA, he didn't have the same kind of revolutionary technology. What he did have was a drive to meet the needs of his farmer customers that went on to build a great company and which we believe is still at the core of our thinking today.

I hope you enjoy this issue of FarmForum.

Peter Friis
Marketing Director Case IH Europe, Middle-East & Africa

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QUADTRAC EFFICIENCY

FURTHER ENHANCED BY NEW CVX OPTION

Two decades ago, Case IH pioneered the development of the articulated tracked tractor with the industry's first four-track design. Now it is again leaving others in its wake, by adding its expertise in continuously-variable transmissions to the flagship Case IH tractors.

Case IH has led the way in both continuously-variable transmission technology and articulated four-track tractors since the mid-1990s. With a long and proven history, both designs have stood the test of time, evolving to meet the needs of a rapidly changing farming industry.

Now, the two technologies are available in the same package, with the launch of the new CVXDrive transmission option that brings the benefits of improved fuel efficiency, ease of operation and reduced operator fatigue to the flagship machines of the Case IH tractor range.

The new range of three Case IH Quadtrac CVX models - the Quadtrac 540 CVX, Quadtrac 500 CVX and Quadtrac 470 CVX - which have respective maximum power outputs of 613hp, 558hp and 525hp, will complement the existing line of five models from 525-692 peak hp that use the established standard 16F/2R powershift. In certain markets the equivalent Steiger wheeled models are also available with the CVXDrive transmission.

> ***"CVXDrive offers stepless travel from standstill up to 40km/h, and can be operated to work at a desired forward speed or engine speed, with Automatic Productivity Management software then able to adjust engine and transmission management accordingly."***
>
> Hans-Werner Eder, Case IH Quadtrac product marketing manager.

PROVEN POWER

Case IH Quadtrac CVX tractors are powered by electronically-controlled 12.9-litre Cursor 13 six-cylinder engines from sister company FPT Industrial, with a single-stage turbocharger on the two smaller tractors and a two-stage turbocharger in the 540 model. On this tractor, the smaller turbocharger delivers low-rpm responsiveness, while the second, larger unit provides maximum boost at high rpm. Each turbocharger has its own cooling system to provide 30 per cent faster response under load.

FIRST CVT IN AN ARTICULATED TRACKED TRACTOR

Continuously-variable transmissions have, until now, never been available in an articulated tracked tractor. The CVXDrive transmission in the Quadtrac 470, 500 and 540 CVX models brings benefits including ease of use – particularly for inexperienced operators – faster acceleration to field or road speed, reduced operator fatigue, full power availability at low ground speeds for special applications/implements, and full hydraulic flow availability at low ground speeds, for applications such as drilling/planting. The result is increased productivity with faster cycle times and maximum fuel efficiency.

Providing stepless travel from 0-40km/h, and 0-18km/h in reverse, CVXDrive allows the storing of three adjustable target speeds from 0km/h to 40km/h, adjustable via the thumb-wheel and

buttons on the Multicontroller. The transmission incorporates a kick-down feature which ensures maximum acceleration, and 40km/h is achieved at just 1,640rpm. There are four mechanical ranges with automated range-changing, for maximum efficiency and operator comfort. The first time 100% mechanical power transfer takes place is below 10 km/h, matching heavy draft application requirements. Four multi-plate wet clutch packs, mounted on the four planetary gear sets, change the ranges without power interruption, with equal clutch speeds guaranteeing smooth shifting without clutch wear.

Active Hold Control means the tractor, when brought to a halt on a hill, can remain static without the operator applying foot or hand brake. The park brake is automatically applied if it remains in this state for longer than 45 seconds.

In place of a deceleration foot switch, Quadtrac CVX models feature a foot pedal which, in automatic mode, acts as a drive pedal, controlling the tractor's ground speed. Maximum ground speed can be adjusted with the thumb-wheel and speed range buttons on the armrest-mounted Multicontroller. In manual mode, the foot pedal acts as a conventional foot throttle. The Multicontroller also incorporates a power shuttle switch, which works in parallel with the shuttle lever on the left of the steering column. The Eco Drive dual hand throttle allows the setting of minimum and maximum engine speeds to maximise efficiency and minimise fuel use, and the engine droop function, which determines the engine speed down to which the rpm can drop under load.

The tractor can be stopped temporarily – such as at road junctions – using only the brake pedal, returning to its previous speed once the pedal is released. Fast reduction of forward speed is possible by drawing back on the Multicontroller. Three different response levels for acceleration, deceleration and power shuttle modulation can be set using the Multicontroller armrest.

ELECTRONIC SYSTEMS BOOST PRODUCTIVITY

Key among the operating systems for the Quadtrac CVX tractors is Automatic Productivity Management (APM), designed to ensure the most efficient operation of the machine, whether the operator or owner target is minimum fuel use or maximum output.

APM co-ordinates the engine and transmission with the Multicontroller and drive pedal, automatically reducing engine speed to the minimum required for the tractor's workload, to minimise fuel wastage. The tractor can also be operated in manual mode, without APM, with the transmission controlled via the Multicontroller and the engine speed via the foot or hand throttle.

HYDRAULICS FOR THE MOST DEMANDING IMPLEMENTS

The variable displacement pump which supplies the hydraulic requirements is a pressure- and flow-compensating type, providing a maximum 216 litres/min of oil flow (428 litres/min option) to cope with the highest demands. The system operates at 210 bar, supplying up to eight remote valves. These and the 8,949kg-capacity rear linkage are controlled electronically via the Multicontroller armrest.

MODELS MARK TWENTY YEARS OF QUADTRAC

A number of anniversary livery Quadtrac 620 tractors are now working across Europe, following their release late last year to mark twenty years since the machine's introduction.

Developed from the articulated tractor knowledge inherited by Case IH when it acquired Steiger and its Fargo, North Dakota factory in 1986, Quadtrac development began in the late 1980s, when engineers began studying headland-scrubbing and traction-loss problems associated with turning twin-track differentially-steered rubber tracked crawlers, plus loss of ground contact when traversing undulating ground. The first public showing of a Quadtrac prototype was at the 1992 US Farm Progress Show. Development work included cable-reinforced tracks and a patented sealed mid-roller design.

Based on a 360hp 9370 tractor, the production Quadtrac was launched in September 1996, also at the US Farm Progress Show, this time held in Amana, Iowa. The machine then made its European debut the following February at the SIMA show in Paris.

In 1998, the 360hp Quadtrac was joined by a 400hp model, the two now being numbered as the 9370 and 9380. Two years later the range was replaced by an all-new 375-440hp STX line with new cab and styling. Since then, as well as finding favour on large farms worldwide, Quadtracs have also been used to twice break the world 24-hour ploughing record, most recently in 2005, when an STX500 and Gregoire Besson 20-furrow reversible covered 320.5ha (792ac). Further records achieved have included a charity gathering on July 28, 2012, of 50 working Quadtracs in one UK field to raise money for Cancer Research.

Today, the range offered to European farmers spans five models from 525-692hp (max), and while competitive machines are now available, Quadtracs retain unique design features such as their triple mid-roller design for full load bearing along the track, plus proven drivetrains and 20 years of manufacturer and dealer knowledge.

CASE IH CELEBRATES 175 YEARS SERVING AGRICULTURE

This year marks the 175th anniversary of the foundation of the business that has become today's Case IH. Then, as now, our focus remains firmly on helping farmers in their everyday challenges with greater efficiency than was previously possible.

In 1842, in the US town of Racine, Wisconsin, where the worldwide headquarters of the Case IH agricultural business remain today, Jerome Increase Case founded his eponymous farm equipment company. As Case IH celebrates its 175th birthday, while the faces of both farming and of agricultural engineering have changed out of all recognition, many of the principles on which our business is based hold as true now as they did then.

Having worked extensively with farm equipment, Jerome Case founded his Racine Threshing Machine Works on the shores of the Root River, focusing on the manufacturing of machines to speed up the separation of grain after harvest. His philosophy was that every piece of equipment manufactured by his company must deliver on the promise of his brand, and saw to it personally that this was the case.

The company's beginnings were closely linked with those of the American economy, as American pioneers moved west and new farms were established there to feed the growing population centres of the eastern US. As demand grew for mechanised ways to help improve other aspects of agriculture, in 1869 Case introduced the industry's first steam tractor. This initial design was still horse-drawn, and used to power other machines, but in 1876 the company built the first self-propelled steam traction engine. As steam engines quickly began to replace horses to provide threshing power, by 1886 the JI Case Threshing Machine Company had grown to

CASE IH AUTONOMOUS TRACTOR TAKES SILVER AT SIMA

The Case IH Autonomous Concept Vehicle (ACV), a driverless version of the Case IH Magnum CVX tractor, was earlier this year awarded a silver medal in the Innovation Awards scheme of SIMA, the French international farm machinery exhibition, in recognition of the potential it offers for the advancement of agriculture. First shown at the 2016 US Farm Progress Show, the ACV made its European debut at SIMA in February 2017.

SIMA's Innovation Awards recognise new developments with design and features having the potential to offer significant user benefits. The Case IH ACV silver medal recognises the value of relieving operators from monotonous field operations, allowing that labour to be redeployed more effectively, and bringing the next step in precision farming efficiency.

Case IH identified a need for this technology because in some parts of the world it is increasingly difficult to find skilled labour to work long hours on large farms during busy periods. The result of five years' development, the ACV helps meet this challenge, through the ability to

become the world's largest producer of steam engines.

INTERNATIONAL HARVESTER

Sixteen years later, in 1902, separate developments saw five companies all involved in the production of grain harvesting equipment merge to form the International Harvester Company. The new entity was based in Chicago, and the deal was personally brokered by JP Morgan, the American banker who dominated corporate finance and industrial consolidation at the time. In 1915, IH produced its first combine, and eight years later introduced the Farmall, the world's first rowcrop tractor. Providing greater productivity, reliability and safety, it was part of a revolutionary unified system of tractors and implements for all major farm tasks. The firm went on to sell more than five million Farmall tractors.

In 1977, IH launched a new combine design that was to revolutionise high-output harvesting, bringing with it more thorough yet gentler threshing than had previously been possible. Doing away with a drum-and-concave and straw walkers, and replacing them with a single longitudinal rotor and concave that handled both threshing and separation tasks, the Axial-Flow was revolutionary in its simplicity and crop adaptability, and produced significant advances in grain quality and grain savings.

THE BIRTH OF CASE IH

Case IH was formed in 1985, when the then-parent of JI Case acquired the agricultural division of International Harvester, uniting the legacies of Case and IH in a single brand. The first product to be developed by the merged team of designers and engineers was the Magnum tractor, a clean-sheet design introduced in 1987 and spanning 155-246hp. It became the first tractor to win the Industrial Design Excellence Award. Today, after sales of more than 150,000, Magnum retains its core characteristics, but has been completely redesigned, with models of up to 419hp available, and with a unique Rowtrac rear track option.

In 1996, Case IH launched the revolutionary Quadtrac, the industry's first articulated high-hp rubber-tracked tractor. With oscillating tracks on each corner, it provided maximum ground contact at all times, and smooth, scuff-free turning. While the first model produced 360hp, today's completely revised range is topped by the Quadtrac 620, which produces a maximum 692hp, making it the most powerful production tractor in the world.

During the same period, Case IH also launched its first Advanced Farming System technology, enabling farmers to begin to benefit from developments such as auto-steering and yield mapping. With levels of repeatability down to as little as 2.5cm, AFS has helped to maximise the efficiency of inputs by minimising wastage.

INNOVATION AND AWARDS

In the late '90s came the introduction to mid-range Case IH tractors of CVX continuously-variable transmissions, technology that would ultimately become available in models ranging from the Maxxum line to the flagship Quadtrac range. Delivering benefits ranging from stepless travel to the ability to work at set engine or forward speeds, CVX transmissions have taken fuel efficiency and productivity to new levels.

Today. Case IH continues to focus on innovative developments to help make farming more efficient. Aptly-named EfficientPower technologies help meet the latest Stage IV emissions legislation without the need for complex exhaust gas recirculation systems or particulate filters. Tractors such as the Magnum 380 CVX and Optum 300 CVX have won a raft of European awards acknowledging the benefits their design brings to agriculture. And we continue to focus on the future, as evidenced by developments such as the Autonomous Concept Vehicle, revealed at the 2016 Farm Progress Show in the USA and designed to help address labour shortages and produce food as efficiently as possible.

> ***The 175th anniversary of Case IH is a testament to many years of quality, perseverance and progress,"***
> says Andreas Klauser, Case IH brand president.

"It's also an occasion to reflect on our guiding principles of innovative engineering, efficient power and agronomic design, which create a philosophy that will continue into the future.

"When I look at the enormous transformation that has taken place in agriculture over the past 175 years, , it's very exciting to think about what might be achieved during the next 175. I'm sure that will be discussed during our celebrations with customers, dealers and employees."

make the most of ideal soil and weather conditions while minimising the need for unsociable hours. As ACV development is progressed, elements of its technology may be gradually integrated into existing equipment.

Using AccuGuide auto-steering supplied with Case IH RTK+ GPS for ultra-accurate guidance, the autonomous tractor concept has been designed to allow completely remote monitoring and control, with immediate recording and transmission of field data. The ACV can be seamlessly integrated into existing fleets, and aside from the driverless technology uses a standard engine, transmission, chassis and hitch/pto/hydraulic couplings.

While the ACV is currently a concept, product development is ongoing and the technology it incorporates is relevant and ready for real-world situations. Case IH is following developments in autonomous vehicle regulations, and developing the on-road element, as well as looking at optimising implements for autonomous application.

ONE MAXXUM RANGE –

NOW WITH THREE TRANSMISSION OPTIONS

With the introduction of the new ActiveDrive 8 transmission, Case IH now offers four- and eight-step powershift as well as continuously-variable transmission options across the Maxxum range, to suit every operation.

For those seeking even greater efficiency and operating ease from their mid-range tractors, there's now a new transmission option for the Case IH Maxxum range, with the introduction of a new semi-powershift transmission.

ActiveDrive 8 is a new three-range, eight-step powershift transmission from Case IH, providing a total of 24 speeds in both forward and reverse. Available on Maxxum Multicontroller models – which can now also be specified with either mechanical or electronic remote valves – the transmission incorporates a number of features designed to make the tractor more efficient and the driver more relaxed.

Covering speeds up to 10.2km/h, range one is specifically designed for heavier draft work. For special applications requiring very low speeds, such as vegetable crop work, ActiveDrive 8 is also available with additional creep speeds. The main working range is range two, which covers nearly 90% of all field, grassland and loader application requirements, allowing the tractor to work under full load, without any torque disruption, from 1.6-18.1 km/h. For road travel, the transmission is designed to start in range three, and to shift through all powershift steps up to 40 km/h Eco or 50 km/h. An auto shift feature means the tractor can be set to progress automatically through any set of eight speeds in the field, and through all 16 gears in the top two ranges on the road. A pedal kick-down function can be used to over-ride the transmission automation and cause it to downshift, to make the best use of available power.

NO LOSS OF DRIVE OR TRACTION

With no pedal clutching required, this transmission is ideal for key power-hungry tasks where momentum is important, such as cultivations or mowing with twin or triple mowers. A true power shuttle ensures no loss of drive or traction during changes of direction on slopes, while a 'brake to clutch' feature makes stacking bales with a loader much safer and easier. Both shifting and shuttle response can be modulated according to the task in hand.

Maxxum Multicontroller models make both tractor and operator more productive, courtesy of the trademark Case IH Multicontroller armrest and its joystick, which put multiple operating functions at the driver's fingertips. From full transmission operation via thumb-operated powershift and powershuttle control, to engine speed control and the operation of electronic remote valves, everything is immediately at hand. Intuitive, instinctive operation is the hallmark of every Case IH Multicontroller-equipped tractor, bringing with it benefits for productivity and efficiency. And now, with the new 24F/24R ActiveDrive 8 eight-speed powershift transmission and its automatic shifting, Maxxum Multicontroller models are even easier to operate.

In line with the launch of ActiveDrive 8, the proven four-speed powershift fitted to standard Maxxum models has been renamed ActiveDrive 4. With 16 forward and 16 reverse speeds, the transmission offers a top travel speed of 40 km/h.

CVX REMAINS TOP OPTION

Of course, as one of the innovators in continuously variable transmission technology, Case IH remains at the forefront of CVT design and implementation in tractors, creating systems that offer the ultimate in efficiency yet are intuitive to operate. Maxxum CVX tractors, which cover the 116-145hp power band, are equipped with the Case IH CVXDrive transmission, the third transmission option in the Maxxum range. This offers stepless travel up to 50km/h, and the ability to be programmed to work at a set forward speed or engine speed for maximum efficiency.

And that's not all. The four-cylinder Maxxum models are now joined by a new six-cylinder Maxxum 150 CVX at the top of the range, producing 175hp (max) from a 6.7-litre turbocharged and intercooled FPT power unit. This means Case IH now offers the lightest, smallest tractor in the industry with a six-cylinder engine of this power output. Both the Maxxum 150 Multicontroller and the Maxxum 150 CVX will be fully available from the third quarter of 2018.

MAGNUM 380 CVX HELPS SMASH MAIZE SOWING RECORD

Earlier this year Case IH joined forces with Vaderstad to make an attempt on the maize drilling 24-hour world record for the number of hectares planted during that period. They succeeded – by more than 50ha.

During spring 2017, when Vaderstad decided to attempt to break the world record for the area of maize drilled in 24 hours, it was Case IH they turned to for providing the power for their 16-row Vaderstad Tempo L 16 drill. Pulled by a Magnum 380 CVX, the pair proved a winning combination, smashing the record by 53.76ha to cover a total of 502.05ha with seed, fertiliser and insecticide to full agronomic guidelines, in a crop that will be taken through to harvest.

> ***"With headland turns being made at high speeds of 15-17km/hr, the record attempt was a great way to prove the value and accuracy of AccuTurn automatic headland steering,"*** says Ulrich Sommer of Case IH.

ACCUGUIDE AUTO-STEERING

"It also proved the Magnum's manoeuvrability when turning into the next pass. When combined with AccuGuide auto-steering, this allowed the three operators to focus on the drilling. The record attempt was monitored by staff from Gödöllő University, who will measure the plant spacing precision upon emergence and follow up the results. These are commercial crops that will be harvested this summer, so it was also important they were established with the accuracy necessary to maximise yield potential.

Beginning at 11.30am on April 11, the record attempt took place in two adjacent fields on a farm operated by Enyingi Agrár Zrt, based near the city of Enying, close to Lake Balaton, in western Hungary. Working at speeds up to 24km/hr, the tractor ran on dual 710/70 R42 rear tyres for minimal impact on the cultivated sandy soil, and consumed an average of just 3.1 litres/ha.

A team of 32 people worked in groups to refill the seed hoppers, insecticide compartments and fertiliser hopper on the drill in just one and a half minutes each time. Seed rate was 70,000 seeds/hectare in 30in/76cm rows, the drill covering 12.19m in each pass, with sub-2.5cm accuracy RTK guidance set-up through Case IH's AFS 700 terminal and operated via AccuGuide auto-steering. The AFS 700 terminal was also used to manage the ISOBUS Task Controller which ensured instant shut-off of individual row units upon reaching the headland at an angle.

"The CVXDrive transmission proved not only fuel efficient and easy to operate, but also quickly brought the combination up to the optimum working speed when pulling away from the headland. The Magnum 380 CVX also provided plenty of hydraulic flow, ensuring the drill's fans for both seed and fertiliser distribution were never short of oil to maintain their speed ensure seed placement remained precise. With 221 litres/minute available from the tractor to service both the fans and the hydraulically-pressured coulters, that wasn't an issue."

STEIGER 620 TRACTOR BREAKS NEBRASKA PERFORMANCE RECORDS

The largest model in the Case IH range of wheeled tractors has set new records at the University of Nebraska Tractor Test Laboratory (NTTL) in the United States, the verification facility for tractor manufacturers' performance claims.

Results from the tests on the Steiger 620, the wheeled equivalent to the Quadtrac 620, have shown officially that the machine is the most fluid-efficient and highest drawbar horsepower tractor in the world. New records set by the model include those for drawbar fuel efficiency, drawbar horsepower and maximum pull. In each catagory the Steiger 620 outperformed all tractors previously tested at the facility.

In addition to the highest horsepower figure – 594.08hp – yet recorded at the NTTL, the Steiger 620's ability to efficiently transfer power to the ground was proven by maximum drawbar fuel efficiency figures of 242g/kWh, and the production of 75 per cent of maximum pull power at 257g/kWh fuel use.

PUMA CELEBRATES TEN YEARS OF PRODUCTION

The Case IH Puma, which has become one of the most successful tractor ranges in the brand's history, this year celebrates a very special birthday.

Since it was announced in 2006 for production to begin the following year, the Case IH Puma range has consistently been one of the strongest sellers in the brand's range of tractors. Designed and engineered at the Case IH factory at St Valentin, Austria, it quickly became the line that offered something for everyone – arable farmers, livestock producers, contractors and others.

The first Puma range was launched at the 2006 Husker Harvest Days in the US and spanned four models covering the 165-210hp power band, courtesy of a six-cylinder, 6.75-litre engine that met the Stage III emissions legislation applicable then. The turbocharged and intercooled unit featured common rail electronic fuel injection, a particular innovation at the time.

All models were equipped as standard with an 18F/6R full powershift transmission, which included a patented torque-sensing system on the tractor flywheel to measure engine speed and transmission torque loading. Maximum engine efficiency and minimal fuel consumption was assured by an automatic shifting feature that allowed the transmission to change ratio according to engine speed, transmission load and forward speed. An optional creep speed transmission added an extra 10 forward and six reverse speeds.

TRANSMISSION OPTIONS GROW

Over the past decade, the range has been expanded, restyled and re-engineered to create a line of tractors that provides a perfect complement to the Maxxum and Optum models that bookend them. In 2007, the introduction of a new 19-speed full powershift transmission option brought with it the possibility for 50km/h road travel. It was the following year, though, that saw one of the most significant additions to the range, with the introduction of a CVX continuously-variable transmission option, drawing on the expertise of engineers who had previously developed this technology for over a decade in other St Valentin-built tractors. The new transmission offered the fuel-saving and productivity benefits of stepless travel from standstill up to 50km/h, and allowed tractors equipped with it to be set to operate a desired engine or forward speed for maximum fuel efficiency and productivity.

Today, the Puma line continues to form the heart of the tractor line built at St Valentin, Austria, and ranges from the standard specification Puma 150 with ActiveDrive 4 four-speed powershift transmission to the flagship Puma 240 CVX. Home to the Case IH European headquarters, the St Valentin plant relies on the passion and expertise of its engineers and production workers, plus its state-of-the-art assembly lines, to produce tractors of the highest quality built to exacting levels of precision. Every Case IH Puma carries the flag for Austrian engineering and manufacturing excellence. If you haven't yet tried one on your farm, Case IH has a decade of development behind them that will help prove to you how good these machines are.

...AND GETS A RAFT OF REVISIONS

The Puma range, the heart of the Case IH tractor line, has been subject to significant updates for the new model year, with new additions and enhanced features designed to make these machines even more productive and even easier to work with.

The introduction to the range of a number of new features means Case IH Puma tractors now offer more choice than ever before, to cover the requirements of every type of agricultural business.

With driver comfort being linked directly to productivity, significant improvements to the front axle suspension, incorporating a double accumulator, create an enhanced ride for operators of Puma 185 Multicontroller to Puma 240 CVX models, particularly as axle loads change. With tractors increasingly being asked to perform operations at higher speeds to make the most of tight time windows, these suspension revisions, which improve the speed of response of the suspension system and the level of cushioning it provides, will ensure an even smoother for Puma drivers, whether working in the field or travelling on the road. Meanwhile, gross vehicle weight allowances have been increased from 13,000kg to 13,650kg on Puma Multicontroller models and to 14,000kg on Puma CVX tractors, improving machine capacity on the road.

Puma 185 Multicontroller to Puma 240 CVX models can also now be equipped with Adaptive Steering Control (ASC). This variable-rate steering system allows the ratio between the number of steering wheel turns made and the steering angle of the front wheels to be altered according to the operator's requirements. In this way, the number of turns required to take the tractor from lock to lock can be adjusted in relation to the work in hand. Via the tractor's AFS terminal, the operator can select a desired steering ratio through three pre-set options or a custom setting.

Also new, and for all Puma models, is Reactive Steering. This introduces sharper reaction and self-centering to the Puma steering system, resulting from improvements to the front axle, including new steering sensors.

IMPLEMENT CONTROL

Puma Multicontroller and Puma CVX tractors with ISOBUS Class III make possible two-way data transfer between the tractor and any compatible implement. This not only enables implement features to be controlled via the AFS 700 terminal screen, but also allows the implement to feed back information that can then control tractor settings such as forward speed, resulting in optimum performance in operations such as baling. The Class III system also enables, for example, the baler to direct the tractor's steering along the swath, to ensure an even intake and a perfectly-formed bale.

It is now possible, via the AFS 700 terminal screen, to quickly and easily configure all buttons on the Multicontroller – apart from those that operate the transmission – plus the remote valve paddle switches and the remote valve joystick, to operate ISOBUS implements as desired. This has been done to allow operators to create a set of controls that suit their particular requirements and circumstances.

All models now feature new colour-coded remote valves. As a result, implement coupling is made faster, by easing the process of identifying which valve at the rear of the tractor corresponds to which switch (electrohydraulic remote valve models) or lever (mechanical remote valve models) in the cab. Whether large or small, the latest updates to the range of Case IH Puma tractors will each play a part in boosting productivity and easing operation.

SPECIAL EDITION PUMA

To celebrate its 175th anniversary – see elsewhere in this issue – earlier this year Case IH announced the release of a special edition of the Puma 175 tractor, one of the best-selling models in the range.

Produced in a limited production run to mark 175 years since the foundation of the firm that became today's Case IH, the special edition also marks ten years' production of the Puma line, the St. Valentin-built seven-model range which spans 150-240hp.

The Puma 175 Limited Edition is finished in a distinctive 'Viper Stryker' pearlescent red inherited from the Case IH Autonomous Concept Vehicle (ACV) unveiled at the 2016 Farm Progress show in the US and shown at SIMA 2017. It also carries unique 175th anniversary 'Limited Edition' decals, featuring the number of the tractor – only 175 are to be built. The Limited Edition tractors have been produced for retail at no additional cost to the standard models.

AXIAL-FLOW HELPS CUT WORLD

RECORD WHEAT CROP

Earlier this year, a New Zealand farming couple harvested a world record-breaking wheat, using their 9230 Axial-Flow to cut a crop that yielded 16.791 t/ha

New Zealand's agriculture may be better-known for sheep farming and milk production, but its long growing season, summer light levels and moderate maritime climate mean it enjoys the conditions that help produce bumper cereal yields. The country produces world record-breaking wheats on a regular basis, and has just snatched the official title back from the UK.

Case IH combine users Eric and Maxine Watson have run a 490ha farm at Wakanui, near Ashburton, in the Canterbury region of New Zealand's South Island, since 1992. Most of their crops, which include cereals, grasses, vegetable seeds and pulses, are grown for seed production, and among the factors which help them squeeze the maximum from them without excessive expenditure is precision technology.

> ***We use computerised variable-rate irrigation to ensure crops get exactly the quantity of water required,"*** explains Eric.

"Healthy soil is another focus, with regular nitrogen testing helping minimise fertiliser use and maximise efficiency, and we've adopted tracked machines to reduce compaction."

The record-breaking crop of Oakley, a UK-bred feed wheat, was grown in an 11.89ha field, sown in mid-April 2016. Harvested in mid-February, it yielded 16.791 tonnes/ha, beating the previous record, held by Rod Smith of Northumberland in the UK, by 0.272 tonnes/ha. After verification, it earned a listing in the Guinness Book of World Records.

On average, New Zealand irrigated wheat yields are around 12 tonnes/ha, but while the Watsons had been achieving high yields for several years, they had never attempted the world record until encouraged by their agronomy and fertiliser advisers. The Watsons worked closely with Bayer New Zealand, who had previously helped Warren Darling, of nearby Timaru, to break the record for barley. Yara Fertilizers New Zealand assisted with crop nutrition advice, using regular tissue testing to guide foliar trace element timings.

"The crop was sown at a very low seed rate, to encourage tillering, and regularly irrigated," explains Eric. "There were things I saw when out in the combine that made me think I could do better, though, and spot rates were at times much higher than the average."

PURCHASED FOR SIMPLICITY

For the past four years, the Watsons have operated a Case IH Axial-Flow 9230 combine, and it was this that cut the record-breaking wheat. Featuring front axle tracks to minimise compaction and cutterbar movement, it was purchased primarily for its simplicity, says Eric. It works with either a 9m direct-cut header or the latest Case IH draper pick-up for windrowed crops.

"The fact it has fewer moving parts than other designs is a big attraction, as there's less to service or wear," says Eric. "The single rotor is very good at delicately threshing the seed crops we grow, which include various vegetables, ryegrass and fescue, and it's handy to be able to reverse the hydraulic drive should a blockage occur. We also harvest chicory, which can grow over two metres tall, but the Axial-Flow handles all that plant matter without a problem. And, of course, it also works well in wheat. Changing the concave modules for different crops, especially from small seed to beans, is easy.

> ***Our experience over the past four years running a Quadtrac 450 meant we already knew Case IH's track systems. Previously we ran a twin-track, and quickly saw the advantages of four tracks and articulated steering, especially on headlands. Having tracks on both the combine and the big tractor helps protect our soil structure, which is critical in growing high-yielding crops."***

Eric Watson

FRANCE TEST SHOWS AXIAL-FLOW'S

PRODUCTIVITY IN CORN

The crop had been drilled in April, the variety being Maïs Adour (Pioneer), which grew to a height of 4m before being harvested on 12 October 2016.

In October 2016, Case IH demonstrated the efficiency and performance of its Axial-Flow concept in corn at a Field Performance Day in the south west of France.

The La Bergerie farm is situated at Herré, a village in the Nouvelle-Aquitaine region. Covering 650 hectares, it produces 400 ha of corn and waxy corn, together with sweetcorn and beans. It is owned by the Laffargue brothers, who have used Case IH equipment for 20 years: currently they have a Axial-Flow 6088, Magnum 340 CVX and Puma 180 CVX.

The farm's large fields meant that the test combine could perform at its optimum, and its weighbridge could record the corn weight accurately. The owners were pleased to welcome us and ready to 'play the game'.

The Case IH team, comprising Yoann Clarisse (Harvesting Area Sales Zone Manager) who operated the Axial-Flow 7240, Sylvain Garnier (Product Specialist), Loïc Massuyau (Area Service Zone Manager) and Michel Sachot (Tractor Area Sales Zone Manager), worked with local Case IH dealer, Samim of Castelculier.

It would have been easy to 'show off' by using the largest Axial-Flow, the 634hp (474kW) 9240, but the aim was to demonstrate the efficiency and performance of the single-rotor concept in corn rather than outright performance, so the team chose a wheeled Axial-Flow 7240. The smallest 240 model, with a rated power output of 425hp (317kW), it had a range of factory-fitted equipment for harvesting corn, including a large tube rotor with 56 rasp bars and eight separation bars, three round bar concaves and one LSW concave, a 15/8" pre-sieve, upper and lower sieves, two-speed clean-grain elevator and rotary dust screen brushes.

Five criteria were measured to assess the combine's overall performance: Productivity; Grain Quality (the number of broken kernels and level of impurities); Grain Cleanliness; Grain Losses; and Stalk Height under the header.

REALISTIC TEST CONDITIONS

The combine was operated under normal farm conditions, using realistic settings. The cutterbar was set at a height of 10cm, the chopper produced a chop length of 20-32cm and the operating speed was 4.5-7.2km/h.

Nevertheless, the Axial-Flow 7240, fitted with a 12-row Case IH 4412 corn header, harvested 24.60 hectares in three hours and 55 minutes for an average output of 6.3ha per hour, at an average moisture content of 22%. The independently verified results showed that during that time the Axial-Flow harvested 318 tonnes of corn, achieved a peak rate of up to 106 tonnes per hour and averaged 81.1t/h including headland turns. Grain losses were very low - just 0.4%.

24.60	hectares
3	hours, 55 minutes
318	tonnes of corn
81.1	tonnes per hour rate
106	tonnes per hour peak rate
0.4%	grain losses
0.098%	broken kernels
0.96%	total impurities

Analysis by an independent laboratory confirmed that the quality of the sample was very high, containing just 0.098% broken kernels and 0.96% total impurities. The sample quality was confirmed in tests by the Agricultural Chamber of Upper Austria, which found an average cracked-grain content of just 0.47%, compared with 1.67% for a competitor machine with a conventional threshing drum.

The patented Case IH single-rotor design has a lower power consumption than any other threshing concept, offers impressive output potential and grain quality. The single-rotor makes the Axial-Flow the best in its class for harvesting corn, with productivity and efficiency matching much more powerful and expensive models from other manufacturers.

HIGH RELIABILITY, LOW COSTS

The Laffargue brothers were impressed by the Axial-Flow 7240 and especially by the sample quality. The tests confirmed to them that Case IH is a real combine specialist and that an Axial-Flow with the corn rotor will easily meet Class A storage requirements with less than 0.5% damaged grains, as these increase the time and cost of drying, while for export it is critical that Waxy corn is not damaged.

The brothers also liked the 4000-Series corn header which, with the excellent standard of chopping and distribution of the crop residues, is perfect for minimum cultivations.

UPDATED FARMLIFT TELESCOPIC LOADERS

MAKE THEIR DEBUT

The revised line of Farmlift telescopic loaders for 2018 incorporates a number of new features to enhance their performance, meet the latest EU 167/2013 'Tractor Mother Regulation' type approval and EN1459 safety standards, and comply with the latest Stage IV emissions regulations.

The upgrades apply to the five largest models in the Farmlift range, with the smallest model, the Farmlift 525, remaining unchanged. The enhancements are designed to improve both productivity and efficiency, ranging from updated engines and an improved power shuttle to LED lighting and the option of higher hydraulic pump capacity.

Power on all models is provided by NEF four-cylinder engines from FPT Industrial, featuring a new turbocharger for improved efficiency. A diesel oxidation catalyst (DOC) is the key to meeting Stage IV emissions regulations, working in conjunction with a selective catalytic reduction (SCR) system which uses diesel exhaust fluid (DEF/AdBlue). The engine in Farmlift 632, 735 and 935 models now has a rated power output of 121hp – an increase of 11hp – while the Farmlift 635 and 742 have power outputs of 129hp. Maximum peak power on 632, 735 and 935 models is 133hp, while on the Farmlift 635 and 742 the corresponding figure is 145hp.

The Farmlift 632, 735 and 935 models can now be specified with the same variable piston-type hydraulic pump that previously was available only on the Farmlift 635 and 742. This closed-centre load-sensing pump provides a maximum 140 l/min of oil flow, an increase of 20 l/min on the standard gear pump, for customers seeking even faster hydraulic response and improved cycle times. Also now optional on these models is a boom headstock with an increased total rotation angle of 142 degrees. Standard units have a comparable angle of 128 degrees.

While a shuttle switch integrated into the joystick has become an established design feature of Farmlift 635 and 742 telescopic loaders, Case IH recognises that some operators prefer the traditional fitment of a shuttle on the left side of the steering column. As a result, a shuttle lever can now be fitted as an option, working in combination with the joystick-mounted shuttle switch, which remains.

Further upgrades include improved rear view mirrors, new integrated rear fenders with lights support, a revised engine hood with self-locking handle, and LED lighting options to improve illumination when working early or late in the day.

> ***With the market in European agriculture for telescopic loaders in the 6-10m lift height sector continuing to grow, Case IH is now taking the next steps after entering this market segment in 2013 with Farmlift,"*** says David Schimpelsberger, Case IH European product marketing manager for Farmlift.

"The product upgrades and further modifications within our program to meet Stage IV emissions regulations, Tractor Mother Regulation implementation and EN1459 safety standards compliance show we are committed to competing with the sector's major players and growing our business in the telescopic loader segment."

QUADTRACS HELP DANES

REVOLUTIONISE FARMING IN SLOVAKIA

Agricultural journalists from across Europe attended the annual Case IH media event, held in Slovakia on an estate operated by FirstFarms A/S.

Case IH is helping to change agriculture in Eastern Europe, which in recent years has seen massive increases in efficiency and productivity. Many improvements have been due to advances in the quality, power and efficiency of machinery, transforming field operations, providing optimum growing conditions and reducing costs.

FirstFarms A/S is at the forefront of this 'new-look'. Headquartered in Billund, Denmark, it invests in, operates and develops agriculture in Eastern Europe, farming 16,400 ha and employing 250 staff. In 2016, FirstFarms' turnover was DKK 130.3 million and it has ambitious plans to become one of Europe's largest farm management businesses.

9,300	HECTARES, INCLUDING:
1,948	Winter Wheat
1,465	Maize
1,278	Oilseed Rape
874	Rye
505	Sugar Beet
220	Pumpkins

IMPROVING EFFICIENCY

The concept for FirstFarms started in 2005 and today it operates in Slovakia, Romania and Hungary, where favorable cost, production and sales conditions provide the foundation for continued high operating earnings. In addition to a return on invested shareholders' capital, FirstFarms expects, over time, to realise substantial capital gains in the value of land and tangible assets.

The investment in Slovakia is one of the largest-ever by a Danish agricultural business in Eastern Europe. The three operations are located 20-30km north of the capital, Bratislava, on approximately 9,300ha of fertile farmland, of which 600ha is owned by FirstFarms - the rest is leased.

It also has 2,500 dairy cattle plus young stock; all the milk is sold to European dairies, attracted by FirstFarms' ability to provide large, consistent quantities of a uniformly high-quality product.

Through focused investments and Danish-style management techniques, the three subsidiaries achieve economies of scale, greater efficiency and increased production.

The company has disposed of old, worn-out infrastructure and equipment, and invested in new machinery, including two Case IH Quadtrac tractors which have helped to revolutionise field operations.

A NEW APPROACH

Søren Nielsen, who joined FirstFarms 11 years ago and is now its Chief Operating Officer, Field Operations, states: "On our farms in Slovakia we operate two Quadtrac 620 tractors, which replaced two Quadtrac 600s. They were purchased through AgriCS, our Czech Case IH dealer with whom we have a good relationship.

> *"The Quadtrac's four-track design offers significant benefits over twin-tracks; we evaluated both before deciding. The Quadtrac is very efficient at transferring power to the ground; as it is under 3m wide we do not need to provide a road escort."*

Soren Nielsen

"They have also greatly reduced the time and cost of establishment, doing almost all the heavy cultivations and soil preparation work. Each has two drivers operating in 12-hour shifts, running 24/7 at peak times. We use subsoiling and cultivation equipment from 6m to 12m wide, at speeds from 5-15 km/h, covering 5-10 hectares per hour, depending on the task and the field.

"We have used AFS AccuGuide since purchasing our second Quadtrac in 2012. It operates to an accuracy of 10cm and is used for all cultivation operations, on all fields, ensuring that the tractors operate at 99% efficiency instead of around 80%. The AFS AccuGuide system is much easier than the guidance system we used previously, the operators find it easy to use and it greatly reduces driver fatigue.

"Today, we operate 9,300 hectares with the same number of employees as in 2006 on 3,800ha - a massive improvement. Yields are now 10% to 40% higher than before. On good soil, they are 3.4t/ha for winter oilseed rape, 7t/ha for winter wheat and 65t/ha for sugar beet, with 25 t/ha of maize and 4.5t/ha of hay on lighter soils.

"Each Quadtrac will complete 2,000 hours in its first year and 1,500 hours in subsequent years."

ROWTRAC
BRINGS SIGNIFICANT ADVANTAGES TO COMPLEX UK FARMING BUSINESS

The scale and complexity of cropping at Home Farm Nacton, a long-established farming estate in Suffolk, requires the right machinery. It has seen the true value of the Case IH Magnum Rowtrac 380 CVX since purchasing one in 2016.

Home Farm Nacton produces a wide range of crops which are harvested year-round, so tractors are always in use for cultivating, planting and harvesting, says Andrew Williams, Farms Director.

The Magnum Rowtrac breaks up parsley root mass prior to ploughing, using a Pottinger disc/ tine cultivator

Incorporating the Orwell Park Estate near Ipswich, the business operates across 1,900ha of high quality agricultural land in a patchwork of woods, heath, grass and arable. Characteristic of the Suffolk coastal area, much of the land is light and perfect for vegetable production. Most can be worked year-round, so planting and harvesting can potentially take place every day of the year.

Over the last two decades the business has been shaped by a high level of investment in water management and irrigation, removing a constraint which once limited production and returns. With the capability to irrigate 98% of the farmed area, it focuses on high-value crops, mainly early-season crops which are harvested from May to July and followed by winter-harvested second crops.

The business produces over 30 crops, including potatoes, onions, cauliflower, vining peas and herbs, together with cabbage, broccoli and Brussels sprouts, plus organic sweetcorn and red beet for processing into juice. In addition to cereal crops and sugar beet, it has 130ha acres under Soil Association organic certification, all produce being LEAF (Linking Environment and Farming) Marque and Red Tractor certified.

At the heart of the local community, its customers range from the public to local farm shops, wholesalers, box schemes, pack houses and supermarkets. Some organic produce is even exported to Germany and Scandinavia.

RIGHT TOOL FOR THE JOB

When Home Farm Nacton replaced what was previously its largest tractor, a 340hp Massey Ferguson 8690, a more powerful model was required to achieve higher work rates on heavier land which had been taken on.

Historically, the business has operated tractors from a range of manufacturers, so no one brand was particularly the front-runner when it came to replacement. In fact, it was an 'outsider' that caught their eye.

Initial thoughts had turned to a twin-track Challenger or Case IH Quadtrac, but although both offered more power, Production Manager Jason Smith and Farms Director Andrew Williams decided that neither was quite right. Lighter and more flexible, the Magnum Rowtrac was deemed to provide the ideal solution, as it was easy to operate, pulled well and produced much less soil scuffing than a twin-track machine.

Home Farm Nacton subsequently purchased that very tractor, which had completed just 80 hours and featured CVX transmission plus the fully-suspended Surveyor cab. It has since been in daily use.

Guided by AFS, which avoids the need to turn sharply by enabling alternate bouts to be worked, the tractor operates with a five-leg subsoiler, 3.8m heavy cultivator, seven-furrow plough-press combination and triple-bed former. None of these make great demands on its capabilities and the tractor uses less fuel than the much less powerful model it replaced, while doing a better job, more quickly and with more positive traction. The 617-litre fuel and 99-litre urea tanks reduce fill-ups and keep the Magnum Rowtrac hard at work.

Comfortable to operate, even for extended periods and on the road, it is also simple to maintain and offers easy access for regular maintenance.

The installation of the Case IH AFS Connect telematics system enhanced the tractor's already high specification by providing data such as work rate, fuel use and the amount of time that the engine spends idling, which should reduce operating costs.

Impressed by the Rowtrac's performance and dealer support, Home Farm Nacton subsequently took delivery of four new Puma 175 CVX models.

Four new Puma 175 CVX models have recently been delivered to Home Farm Nacton – seen here with their 'big brother' Magnum Rowtrac in the centre.

AXIAL-FLOW
IS IDEAL FOR SPECIALIST SEED GROWER

T Brown & Son Ltd have just completed their 105th harvest at Bottom Farm, Covington in Cambridgeshire, and for much of that time have produced seed crops, which require great attention to detail in terms of field and machine hygiene.

Farming 600 hectares, the family business produces 240ha of winter wheat, including three varieties for basic seed production and one for C2, together with 120ha of herbage seed, half of it fescue varieties for amenity uses such as lawn seed and turf, the remainder ryegrass primarily for the agricultural sector, such as forage leys. In addition, they produce 80ha of spring barley for seed, 50ha of spring beans and 40ha of vegetable seeds, including the UK's only field-scale production of hybrid parsnip seed.

In 2010, the business replaced their Axial-Flow 2388 with an Axial-Flow 8120 model, then in 2016 purchased a new Axial-Flow 7240 after being offered an attractive deal.

"We like the Axial-Flow's relatively simple design, its versatility, ease of cleaning, good dealer back-up, value for money and reliability," Michael Brown states. "The simplicity of the single rotor threshing mechanism means that there are far fewer components to go wrong than with other rotary, semi-rotary or straw-walker type machines, which often include features that simply make them more complex and cost money, without adding any value.

> ***"The Axial-Flow's single rotor design also greatly reduces maintenance, and the fully-opening side panels makes it much easy to access all the internal components for thorough cleaning, which is critical for us as seed growers."***

As the inventor of the single Axial-Flow rotor design on self-propelled combines, Case IH continuously invests in engineering to further optimise what is already setting industry standards.

The feeder, rotor, grain tank and unloading system of each Axial-Flow model are designed to handle large grain throughputs, while the engine power matches the requirements of challenging harvesting conditions without wasting fuel. At the same time, productivity is optimised and grain losses minimised even during high-speed operation, while the high-capacity grain tank allows plenty of time to manage the unloading process.

Axial-Flow combines are noted for their easy operation, quick and simple adjustments, as well as utmost reliability. Daily services can be dealt with quickly and mostly from ground level, as all essential parts and areas are easily accessible. The cab incorporates modern technology to create the ideal environment to allow operators to concentrate on the work ahead, delivering high performance, cost effective harvesting without stress.

MAJOR BENEFITS FROM QUADTRACS

FOR ONE OF UKRAINE'S LARGEST FARMING COMPANIES

Left to Right: Anatoliy Matsyuk, Case IH Ukraine and Moldova; Viktor Kukharchuk, Mriya Agroholding; Viktor Cherniyak, Agro Alliance (importer for Ukraine)

Farming across six of Ukraine's most fertile regions, Kyiv-based MRIYA Agro Holding combines state-of-the-art technology, innovative equipment, efficient use of natural resources and a highly-trained workforce to optimise the business of farming.

During the last two years the company has transformed its approach to machinery. It started in April 2016 when they took delivery of 10 Case IH Quadtrac 500 tractors, chosen for their high performance, quality and fuel economy. According to Viktor Kukharchuk, Operations Manager, it marked a new stage in the company's development.

"The Quadtracs were our first essential investments. The Quadtrac is one of the best examples of modern agricultural machinery. Its four-track drive layout means that it is narrower than a wheeled tractor of similar power but has much better traction and a lower centre of gravity. This is very beneficial on hilly terrain where it would be difficult for a wheeled tractor to perform well."

THE BEST OPTION

MRIYA Agro Holding's key objectives are to minimise soil disturbance, restore the soil's physical characteristics, increase fertility and improve the timeliness / quality of field operations.

"Our climate and soil conditions are complex, so we are very careful to use the best machinery, crop inputs and agronomic technologies," Vitaliy Tkachuk, Chief Agronomist of Zahidagroprom LLC, explains. The Quadtrac tractors are vital in achieving our objectives.

"We practice minimum tillage or no-till technology and the Quadtrac tractors are particularly good for disk plowing and planting. One Quadtrac with a 16-row planter will sow over 1000 hectares in the spring and consume 10-15% less fuel than a wheeled tractor of similar power."

> ***"Much of the time we are working on fragile peat, where even tractors with dual wheels will sink into the soil. There are no problems with the Quadtracs, which operate more efficiently and effectively in any conditions."***

"The Quadtrac exerts minimal ground pressure and compared with a wheeled machine the differences are clearly visible because it causes much less soil damage and compaction. Each Quadtrac travels hundreds of kilometers per season on fields and roads, but the tracks have given no problems and show minimal wear."

NEW FOR 2016

In 2016, MRIYA Agro Holding underlined its commitment to Case IH with another order, worth USD2,615,000, for five Quadtrac 500 and five Magnum 340 tractors.

> ***"We need a minimum of 25 tractors,"*** Victor Kukharchuk, emphasises.

"We now operate 15 Quadtracs, which are exactly what we were looking for. No high-horsepower wheeled or twin-track tractor can compare with the four-track system. The Quadtrac glides over the fields, whatever the soil conditions and in over 1500 hours we have not experienced any problems. Our Quadtracs prove that it is possible to design a durable, long-lasting rubber track which generates significant operational advantages.

"The capital cost is higher than for an ordinary tractor, but not choosing the Quadtrac would be a false economy."

The partnership between Case IH and MRIYA Agro Holding continues to develop - the company recently took delivery of 12 Case IH Patriot 4430 sprayers.

ABOUT:

Formed in 1992, MRIYA Agro Holding produces wheat, sunflower, rapeseed, corn, buckwheat, barley, peas and soybeans, owns seven elevator complexes and granaries with a combined capacity of 60,000 tons. Employing 1600 people, it is one of Ukraine's largest potato producers, operates two starch plants, has its own seed treatment/production plant and four dairy units, with 1200 cows.

BALER IS KEY IN HENRIK'S NEW PATH FOR PROFIT

Henrik Friis runs a dairy farm 130 km (80 miles) south of Copenhagen in Denmark. The farm consists of 140 dairy cows and 80 hectares of land.

For many years the farm was managed traditionally with the cows permanently indoors. But spring this year brought a big change. "We have changed path. We are running the business as an organic farm, and so now you see the cows out on the grassland," he explains.

"Here in Denmark, demand for organic milk is on the rise, especially in the last couple of years. Last year I got the opportunity to change, and my wife and I decided to go organic.

Milk prices have not been that good for a long time, while the price of organic milk has been very strong for some time. At the moment, we are able to get 14 cents more per litre when the milk is organic. This appeals to us of course, but at the same time I also have to accept a downturn in the amount of milk produced per cow. Annually I had 9,800 litres per cow before I converted to organic, now I'm getting 8,000 litres.

No doubt I will be close to where I was before, but I expect to reach 9,500 litres within the year. We need to run in the new systems and the new way of feeding. We've made investments and this has also cost us some money.

But at the end of the day I believe this is the right thing for our business. And as long as the demand for organic milk increases then I want to be able to supply it.

NEW APPROACH TO SILAGE

Running the farm organically means providing the right feed. I have a complete different view on silage now, and that's why one of my investments is a new silage baler.

The Case IH RB 545 Silage Pack is just right for my requirements and it really is a step up from my previous chain and steel bars balers. To be honest I expected a lot from this new baler - it's new and 6 years younger than my old baler, but it has beaten my expectations.

The drop floor and rotor de-clutch are user friendly when the baler picks up a big lump of grass. But what really makes a positive impression is the ability to tie the bale with 140 cm plastic film inside the bale chamber. This is really unique and offers me a much better quality of silage.

GETTING TOP QUALITY

When you use plastic film in the chamber, you are always 100% sure that the bale will stay compressed when it leaves the chamber. With net, the bale opens up a bit and can let a small amount of air into the silage making the quality uneven. I need to be sure the quality of silage is tops with every single bale I make.

140 cm plastic film also makes it easier to open the bale, especially in frosty conditions when net can be quite difficult to get off the bale.

Last but not least I am able to save two layers of wrap plastic film on the wrapper table. With three layers of foil from the chamber and six layers of wrap foil, I have nine layers all together. This gives me a better capacity in the field and saves me some money per bale, as I am using less plastic film than before.

My new Case IH RB 545 baler has proved its worth in many ways."

MEET THE X-TRA CHOPPING SYSTEM REVOLUTIONARIES

The Case IH X-tra Chopping System creates a fine chop, and spreads straw and chaff evenly across the full header width, even in tough, high yielding straw. This allows faster decomposition and incorporation into the soil, with less disease carry-over. Now optional on all Axial-Flow 240s, it was initially retrofitted to some 230 and 240 range combines as well. Here is what customers say:

"MONEY WELL SPENT,"

Andrew Cragg, Brooker Farms, Kent, England

Andrew Cragg farms 570ha, including wheat (350ha), oilseed rape (100ha) and peas (100ha). Commenting in leading UK publication (Farmers Weekly, 16 September 2016), he stated:

"The X-tra Chopping System on our 12.5m Case IH 9230 Axial-Flow has completely changed our system for the better. It's money well spent. Harvesting is the first cultivation for next year's crops, so it's vital to get it right. The system's super-effective chop doesn't just stop cultivators blocking. Splitting stems lengthways and crossways allows moisture and bacteria to get to the straw's internal structure and break it down much more quickly. Worms are more easily able to pull straw into the soil, boosting organic matter and providing the best environment for germination. Nitrogen can be better used by the crop, rather than locked up by decomposing straw.

We're already seeing benefits. With X-Tra Chopping System, the Axial-Flow is the ideal machine for us."

"TRANSFORMS STRAW MANAGEMENT,"

Andrew Clark, Saffron Walden, England.

A.S. Clark & Sons have operated Axial-Flow combines at Langley Lawn Farm since 1981. Farming 800ha, including 440ha of winter wheat, 200ha winter OSR, 80ha winter barley, 40ha spring beans and 40ha spring peas/beans, Andrew Clark states:

"As headers have become wider and fungicides more efficient at keeping crops greener for longer, it has become increasingly difficult to chop the straw and spread residues evenly across the full header width.

Previously we have sometimes had to plough to bury crop residues instead of using min-till. This made it more difficult to control weeds and volunteers, leading to disease carry over and yellowing in following crops.

The X-Tra Chopping System on our Axial-Flow 9230 has transformed straw management by providing the chop quality and even distribution we need. It is noticeable how quickly the shorter-chopped and split straw breaks down, reducing Nitrogen lock-up.

The additional cost is more than offset by savings in cultivations. In conjunction with rotational ploughing and spring cropping, it is helping us stay on top of blackgrass."

Andrew Clark

"MAKES ALL THE DIFFERENCE,"

Tom King, TAG Farming & Hire Ltd, Rufford Forest Farm, Nottinghamshire, England. Producing rye, winter wheat and spring wheat.

Tom King's Axial-Flow 9230 was the first equipped with a X-tra Chopping System, and it makes all the difference.

Rye can grow 1.8m tall, generating twice as much straw as winter wheat. It's also much more difficult to chop, even when completely mature and weather conditions are optimal.

"Even with it operating, the combine has plenty of power, so output is maintained," Tom states. "Fuel consumption is slightly higher, but the benefits in terms of adding humus and nutrients to our light soil and making cultivations easier far outweigh that.

"The chopper on our previous Axial-Flow 7120 produced 40mm-long straw – the Xtra-Chopping System reduces this to 20-25mm. Chopped straw is distributed evenly across the full header width, even in windy conditions, which reduces striping."

"A VALUABLE ADDITION,"

Stephan Randel, Agro Bördegrün GmbH & Co, Magdeburg, Germany.

Operating 3,200 hectares, this progressive business produces winter cereals and oilseed rape, plus 400ha of sugar beet and corn for its biogas plant.

In 2016 Agro Bördegrün GmbH & Co evaluated the X-tra Chopping System on two of its four Axial-Flow 8240 combines.

"Dealing with straw effectively is a priority," Stephan Randel, Head of Crop Production and Technology, explains. „Firstly, it increases the soils' humus and secondly helps to return nutrients, preventing them from becoming depleted."

"Last harvest two combines were equipped with the X-tra Chopping System, so we could make a direct comparison with those which did not have it. The system delivers almost perfect straw quality. It chops it very well and very evenly, to about 5cm, enabling optimum distribution. Straw breaks down much more quickly, stubble is easier to cultivate and waste from our biogas plant can more easily be incorporated.

"It also provides optimal straw decomposition, so we gain the full advantage of the nutrients it contains. The fact that straw decomposes fully also benefits field hygiene by reducing disease carry-over from one crop to the next."

Practical and durable, the X-tra Chopping System proved itself even where there was a higher than normal proportion of green straw.

"Of course, extra power is required to operate the system, so the combine uses slightly more fuel, but the benefits far outweigh the cost. It would be a valuable addition to any Axial-Flow combine in Europe."

Stephan Randel

UK FARMING FAMILY ARE LONG-TERM CASE IH ENTHUSIASTS

A fourth-generation farming family, who purchased one of the first Axial-Flow combines sold in the UK, have been Case IH enthusiasts ever since.

Case IH machinery has been a favourite of the Ford family on their 360 hectaree Red House Farm, South Green in Suffolk in the east of England since 1978. That was the year when they replaced the last of their Claas combines, a Dominator 96, with a new Axial-Flow 1460, a model which had been introduced in the UK the previous year.

Randolph Ford was impressed by the Axial-Flow's simple, logical design, ease of use and maintenance, together with its very low grain losses. His satisfaction with what was the farm's first hydrostatic-drive combine has led to the purchase of a wide range of Axial-Flows during the last 39 years.

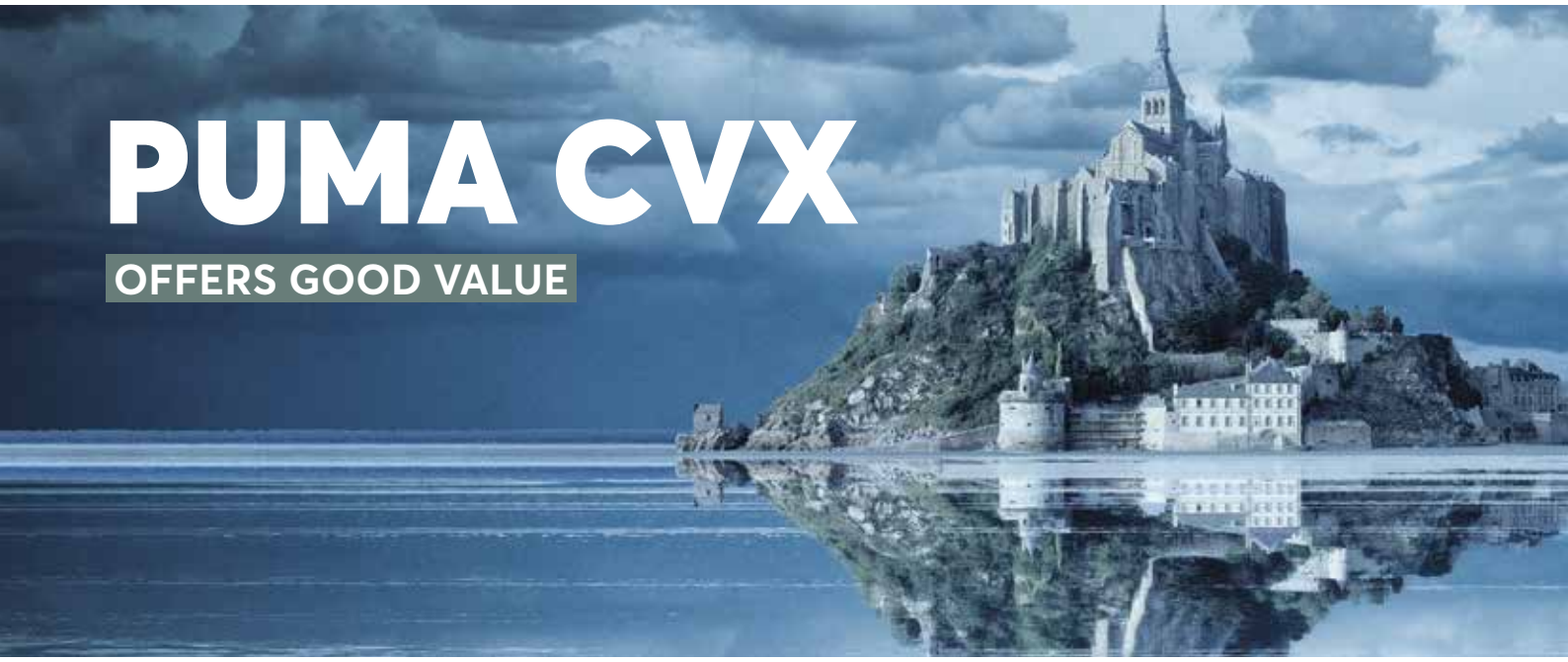
The Ford family replaced their original 1460 with a 1660 in the early 1980s and followed this with 2166, 2366 and 6088 models. While every new one has brought improvement over the previous model, the reasons for purchasing the original 1460 still play a part in the family's choice today Their current Axial-Flow, which arrived just before harvest 2016, is a 6140 with the optional Cross Flow grain cleaning feature, which the family say is an advantage even though their farm is relatively flat.

In addition to the Axial-Flow combine, the family currently operate a Maxxum 110 and two Case IH Puma 165 CVX tractors, with an additional one hired in at harvest.

> ***"When it comes to tractors and combines we have depended on Case IH for almost 40 years, we like that they are easy to use and the CVX transmission is popular with our staff because it makes driving so easy and comfortable. In our experience, Case IH products are very reliable, but we do have our dealer, Ernest Doe Power in Framingham, service them to ensure that everything is maintained in prime condition."***
> says 43-year-old Stephen Ford, who works alongside his brothers, Trevor and Chris.

The Ford family change their Axial-Flow combine every four years, which they regard as the optimum time from a financial viewpoint. Having harvested around 280 hectares of combinable crops each season, after just under 1,200 hectares it remains in excellent condition and is still worth good money when part-exchanged.

"The Axial-Flow is definitely becoming more popular," Stephen adds. "There are a number operating in this area and several farms locally which have bought one in the last year."



PUMA CVX

OFFERS GOOD VALUE

"Case IH are good, reliable, affordable tractors," states Simon Berends, owner of Loonbedrijf Simon Berends BV which operates three Puma CVX models, a 230 CVX and two 185 CVX versions.

The business has operated at Nieuw-Buinen in the north-east of the Netherlands since 1994 when Simon started arable farming on 65 hectares, having sold a 120-cow dairy herd. He subsequently started contracting, diversified into earth moving and, in 2014, went into transport.

Today, the farm comprises 400ha of flat, sandy soil, almost four times larger than the average holding in the area. Of this, 250ha of are used to grow potatoes which rely on irrigation due to the low average annual rainfall, just 800mm. Simon's contracting business serves 50 customers, mainly in the dairy, arable and earth moving sectors.

Simon Berends

A Case IH customer ever since he started farming, Simon has worked with dealer, MCV Valthermond for 23 years, purchasing a series of models over the years, including 845, 856, 956, 4240, 1455 and MX170. So, what attracts him to the brand?

"Case IH produces good, reliable equipment that offers very good quality and value. Service and support dealer are also very important. As a long-standing customer of MCV Valthermond, I know exactly what to expect from them and they know exactly what I require."

In addition to the three Puma CVX tractors which were purchased in 2015, Simon also owns three new Case IH Large Square Balers, a LB 434 and two LB 434R XL models, which are used for straw and grass.

When buying a new tractor Simon looks for a model which is produced by a reliable, trusted manufacturer and incorporates interesting features. Needing tractors which were lighter, more manoeuvrable and more economical to purchase and operate than his previous Fendt models, he was very enthusiastic about the Puma's special lighting package and high front lift capacity.

Some €35.000 per tractor less expensive, Simon's Pumas represented excellent value and were ordered with a range of factory options, including special lighting, electric mirrors, front lift, front PTO, larger tyres, reversible fan and different towing hooks.

They are used with a range of equipment, including big balers, cultivation equipment and crushers. The quiet, comfortable cab, excellent all-round visibility and great manoeuvrability, coupled with powerful engines and sector-leading CVX transmission, make them a pleasure to operate.

Each Puma has completed approximately 2,000 hours in two years and Simon plans to replace them after 5,000 – 6,000 hours. He is very positive about Case IH and likes the company's wide product range and professional aftersales service, which he describes as being 'on a level befitting a global brand'.

...AND VERSATILITY

SAY EUROPE'S FARMERS

A six-year-old Case IH Puma 160 CVX at agricultural contractors S. C. Marsh Ltd in Dorset, England has clocked up a total of 12,300 hours. Despite averaging 40 hours a week it is showing no signs of slowing down.

Matthew Stantiford

"We have purchased Case IH tractors for the last 30 years, starting with a 956XL," states Matthew Stantiford, a director of the 53-year-old business. Employing 15 staff, it operates throughout West Dorset and into neighbouring Somerset, providing a complete range of services, mainly to the dairy farms which dominate this region of England.

The business currently operates seven Pumas from 145hp to 240hp, the 2011 160 CVX being the second oldest.

> ***We have a very good relationship with our local Case IH dealer, GCS AgriCentre in Dorchester, and purchased our first Puma after trying a demonstrator. It offered very good value for money and went on to be very reliable, with low running costs,"*** Matthew states.

He adds: "It is a refined tractor with a nice cab, giving the operator a very good working environment. The CVX transmission is ideal for field work because you can set the forward speed exactly so that it is ideal for any job.

"We recently purchased our tenth Puma; the three that we have traded in had all completed 7,000 to 10,000 hours. It is a very versatile, high quality product, with excellent build quality and reliability. Our Pumas have clocked up over 60,000 hours and the engines have all been outstanding.

"The 2011 160 CVX currently has the highest hours. When new it spent much of its time ploughing, but it is so versatile and economical that we use it to haul 3,000-gallon slurry tankers, operate an umbilical slurry system, works with a 12t rear discharge muck spreader, a 9m-wide set of mowers, a 12m trailed rake, a round baler and a bale wrapper.

"We have no fixed replacement period and each is assessed on its merits. Each operator maintains their machine in good condition, notifies me of any problems and lets me know when it is due for a service, which is carried out by GCS AgriCentre during the warranty period."

The 160 CVX may have the highest hours of any Case IH tractor on the fleet, but another Puma is catching it up fast - the company's 2015 230 CVX has already clocked up 6,500 hours in just two and a half years. In addition to most of the ploughing, it operates a 9m set of triple mowers, a round baler, and with a hedge cutter is used throughout the winter.

QUANTUM

IS THE IDEAL CHOICE FOR SPANISH VINEYARD

Case IH Quantum tractors are popular with fruit and vineyard operations because of their compact dimensions, versatility and performance. Farm Forum visited an owner in Spain with two.

Case IH introduced the Quantum models to meet increasing demand from soft fruit and vineyard enterprises for modern, efficient, highly-productive tractors. Progressive businesses in these sectors are increasingly using higher planting densities to maximise land utilisation and replacing machinery regularly to optimise reliability, productivity and profitability.

In Spain, vineyard owner and fruit grower David Fuentecha Manzanares operates two 95hp Quantum models, a 95N and a 95F. Situated 50 miles from the country's northern coast in Hormilla, part of the province of La Rioja which gives its name to the world-famous red wine, the business' increasing use of machinery has enabled it to expand, improve productivity and reduce labour.

The 20 hectares of vines produce Rioja grapes, there are 12ha of pears, together with 12ha of wheat and barley, making the business slightly larger than most. Cereal crops yield 700kg-1000kg/ha, which is low even for this arid region, but the wheat is of very high quality and used to produce bread. Pears yield 30-35 t/ha, while grapes yield from 9000kg/ha for white wine varieties up to 6500kg/ha for Tempranillo, the black grape from which Rioja red wine is made.

The terrain is hilly, making the land difficult to farm., while soil types range from clay on the hills to sand and gravel in the low-lying fields close to the River Tuerto. Average annual rainfall is 400-500 litres/m2, but following the cold, dry winter of 2016/2017 the area had received just 100 l/m2 by the beginning of June. Señor Manzanares has relied on irrigation to save crops that would otherwise have been lost, but nevertheless it has been a tough year.

CHANGING BRANDS

The farm has operated Case IH tractors since 2009, when Señor Manzanares evaluated the first Quantum model to arrive at his local Case IH dealer, Talleres Cargo, which has depots at Castañares de Rioja and in Haro. Impressed by its performance, manoeuvrability and ease of use, he ordered a 95N, then in 2014 replaced John Deere and New Holland tractors with a 95F.

When purchasing a new tractor Señor Manzanares' insists that it must be practical, manoeuvrable, easy to handle and comfortable. Value for money, good dealer service and practicality are major considerations.

The 95F is powered by a four-cylinder, 4.5-litre diesel engine which produces 398Nm of torque at 1300rpm and drives through a 16F/16R transmission. The tractor is equipped with powerful brakes and even when 4WD is engaged its turning radius is 3.44 metres. Weighing 3000kg, the 95F has a 2.18m wheelbase, is 2.27m high, 1.398m wide on standard 340/85 R28 rear tyres and the hydraulic hitch will lift 2600kg.

Sharing a similar mechanical specification, the Quantum 95 N measures 2.25m to the top of the cab and is 1.225m wide on 320/85 R28 rear tyres. For comparison, the Quantum 95V would be even more compact, measuring 2.19m high and 1.069m wide on 280/85 R28 tyres.

Equipped with high-specification, air conditioned cabs and, the Quantum tractors provide everything Senior Manzanares requires. Used with a range of equipment, they work for up to nine hours per day, the 95N having completed 500 hours, the 95F 380 hours.

Senior Manzanares holds Case IH in high regard and is looking forward to many more years of reliable service from his Quantum tractors but ultimately would like a Quantum with a CVT transmission!

David Fuentecha Manzanares

MAXSERVICE TEAM HELPS

SPANISH COMBINE GET BACK TO WORK

MAXSERVICE, the name for the Case IH Premium Priority Assistance Service, ensures that customers can access top-quality after-sales support, 24 hours a day, 7 days a week, 365 days a year. Complementing the service provided by their local authorised dealer, it is a major benefit for those who operate Case IH equipment and includes access to parts that cannot be found elsewhere, together with express delivery when and where needed.

That was just the support which one customer in Spain required last harvest when the Case IH 3020-25 header fitted to his Axial Flow 7230 combine was damaged in an accident.

Spanish farmer José Carlos Caminero Liquete produces 150ha of combinable crops at Padre Sinisio Nevares2 34120, Carrion de los Condes in the province of Palencia, some 75km from the northern Spanish coast. He also carries out contract work for other farmers in the area, harvesting corn, sunflowers, alfalfa, peas and canola/colza.

A Case IH Customer since 2011 when he purchased an LB424 baler, Señor Liquete took delivery of a new Axial-Flow 7230 in 2016. When the header was damaged in an accident during its first season of work, he immediately contacted his local dealer, Talleres Cargo S.L. in Castanares De Rioja, which covers the Burgos, Palencia, La Rioja regions.

The CNH Industrial WINDELIVERY team which supports Case IH MAXSERVICE: (from left to right) Gia-Thanh Thai, Ismael Zibouh, Iqra Abdul, Salah Zerdeb, Emilie Bacquet, Tony Ofoya Ngolo.

The accident happened during harvest, so Señor Liquete was desperate to have it put right as quickly as possible. The Auger Head on the 3020-25 header was damaged and because this is such a large, expensive part which is rarely required, the dealer could not be expected to keep one in stock, so they sent a Breakdown Assistance (BDA) request asking for MAXSERVICE.

Breakdown Assistance (BDA) intervenes to ensure that all necessary steps are taken to limit downtime as much as possible. Through BDA, equipment failures are notified not only to the dealer but also to Case IH, to help resolve the problem if required.

A dedicated Parts Shipment and Delivery team oversees the location and delivery of parts, including overseas shipments, tracking customers until all issues are resolved. Once solved, dealer and customer satisfaction surveys are carried out to evaluate service and process performance, measured in hours of Total Vehicle Downtime.

MULTIPLE PARTS REQUIRED

In all, 27 parts numbers were required to repair the auger on Señor Liquete's Axial-Flow, including bearings, arms, sprockets, brackets and reel. Most were immediately available from the four spare parts depots in Europe (Le-Plessis, Daventry, Madrid and Heidelberg) and were sent from directly to Case IH dealer Talleres Cargo S.L. The only part not available also happened to be the largest: the reel (Part 84297333) was only available directly from the USA, where Axial-Flow combines are manufactured.

After placing the order, the BDA Department was informed that there would be a six-week wait for a replacement. As this would not have been acceptable, the BDA team in France decided to check out all the alternatives.

They identified an identical Case IH Axial-Flow combine and header awaiting shipment to Australia from the port of Zeebrugge in Belgium. To get the customer's machine back up and running the team took the decision to cannibalise parts from that machine, but because it was held in a bonded area awaiting transportation, special authorization was required. Once this was obtained, a team of technicians went in to remove the parts which were required. and a truck brought in specifically for this job transported the replacement reel directly to Señor Liquete's farm. The repair was carried out to his satisfaction and in a very short time the Axial-Flow was back in action.

The BDA team handles up to 4,900 product lines; their busiest time of the year is from May through to the end of October when machines often work 24 hours a day, seven days a week to bring in the harvest and establish the next year's crops.

Ismael Zibouh, a member of the Dealer Parts Support Department and BDA Team, says: "My colleagues and I work closely as a team and do everything that we can to ensure that customers and dealers are fully supported by addressing any issues that they might have, whatever the problem and whenever it occurs. We were all delighted to help Señor Liquete to get his combine operating quickly and efficiently after the accident."

NEW TECHNOLOGY
TO EASE YOUR WORKLOAD

Case IH has introduced a number of developments to its range of precision farming technologies, including AccuTurn, a new option which automates the headland turn process.

AUTOMATIC HEADLAND TURNS FOR PRECISE ENTRY INTO EACH PASS

New Case IH AccuTurn automates headland turning, taking control of headland steering to guide the tractor accurately into the next chosen pass, improving driver comfort when performing repetitive tasks during long working days.

Enhancing the existing AccuGuide auto-steering system, it ensures headland steering is as accurate as that in the rest of the field. Working with both trailed and mounted implements, the system allows adjustment of parameters such as headland width, curve shape when turning and turn starting point. The distance until the turn begins is displayed on the AFS terminal screen. Activated with an unlock code from the local dealership, AccuTurn also works with all previous AccuGuide systems using AFS 700 terminals.

NEW TRAMLINE FUNCTION FEATURE FOR ACCUGUIDE

There is now no need for tractor operators to count tramline numbers when drilling, thanks to new 3D field maps displayed on the AFS 700 terminal. Passes in which a tramline was set, or requires setting, are colour-coded, and it is now possible to make simultaneous use of swath skipping and tramline functions.

NEW GUIDANCE PATTERN FEATURE FOR HEADLAND CORNERS

Traditionally, automatic guidance systems have rounded-off field corners, with 90-degree corners requiring manual steering. A new corner function makes it now possible to work right into corners, and create 90-degree corners, with on-screen A-B lines extending beyond the field boundaries. In this way, it automatically ensures maximum use of available land. The AccuGuide steering system is activated immediately the implement engages in work in a headland corner.

AFS 700 TERMINAL NOW COMPATIBLE WITH SHAPE FILE DATA

Field boundaries can now also be imported in Shape File format. Different types of Shape File data, such as application maps for drilling, fertilising or spraying, can be produced externally and imported via USB, eliminating the need to produce an entirely new file using desktop software.

With ISOBUS devices, it is possible to use the Section Control function single-handed, making the setting process simpler and saving time, with no documentation required by the ISOBUS Task Controller. When the headland is used to the full, the automatic Section Control function ensures precision operation.

NEW ACCUSTAR GNSS RECEIVER

The established ElectriSteer universal auto-steer motor is targeted primarily at older tractors and combines, and at small tractors not supplied guidance-ready, and can work in conjunction with the AFS 700 terminal. It can now be used with the new AccuStar receiver, offering four accuracy levels: Egnos (20cm), AFS 1 (15cm), AFS 2 (5cm) and RTK+ (2.5cm). To use the RTK+ level the signal must be supplied via a mobile phone network. Case IH offers its own RTK+ network across many European countries. AccuStar uses exclusive 'Glide' technology to boost Egnos signal performance and pass-to-pass accuracy via a position smoothening feature. The AccuStar receiver can also be used as a reliable positioning source for mapping or section control.

AFS CONNECT TELEMATICS

The ‚Fleet History Map' depiction of vehicle positions through the AFS Connect telematics system now shows direction of travel and, using colour codes, the activity being carried out. This allows the owner, operator and, where relevant, dealer, to understand the tractor's activities and settings. Should they wish, customers can now provide their dealers with telemetry data, enabling enhanced customer support. Two-way data transfer is now possible for all supported file formats (.cn1, ISOXML), while Shape File application maps can also be transmitted via the portal to the AFS 700 terminal.

AN AFTER-SALES SERVICE

TAILORED TO YOUR NEEDS

Maximising uptime is vital as farms rely on fewer, larger machines. John Mollaghan, Service Director–EMEA, explains how Case IH can help.

As a farmer, you need to know that your investment in machinery is supported by a committed manufacturer with a strong dealer network which can maximise uptime, productivity and residual value.

Case IH products provides that reassurance. Our equipment is at the forefront of technology, reliable and durable. We also lead in after-sales service, offering service/maintenance packages which protect your investment.

Being part of CNH Industrial provides us with an in-depth understanding of other industries, such as haulage and logistics where pre-emptive maintenance, scheduled servicing and precise cost control are highly advanced. That enables us to offer support, maintenance and servicing solutions which continually raise standards within the agricultural equipment sector.

REAL PRECISION FARMING

'Precision Farming' is generally associated with pinpoint operational accuracy in the field and optimum use of inputs. Case IH think of it as 'Farming Precisely', encompassing everything that maximises efficiency and productivity at every stage.


John Mollaghan

When it comes to machinery, we help you to 'farm precisely' not just with state-of-the-art precision farming technologies but finance packages, warranty schemes and service arrangements that allow you to budget machinery costs precisely. We are committed to minimising machine operating costs and service times, so that we offer real value.

The Case IH Red Excellence Programme continually raises standards within our dealer network, while our 'Safeguard' programme provides aftersales options tailored to your specific requirements.

- **Safeguard Bronze,** our standard warranty package, based on machine age and hours.
- **Safeguard Silver** adds a planned maintenance package and extended warranty.
- **Safeguard Gold,** our premium offering, also covers telematics equipment and systems.

Telematics now play a vital role in managing equipment efficiently and will become increasingly evident in the service/maintenance packages we offer. While most are currently based on age and hours, telematics will enable 'Condition-Based Maintenance' and allow us to tailor packages to specific situations.

This technology will also enable authorised dealers to access machine data remotely and identify, for example, when servicing is required, then contact you to arrange for this to be done. It will also facilitate pre-emptive diagnosis to further reduce costs and downtime.

Technology is enabling Case IH dealers to offer ever- better service. The comprehensive factory training programme for Case IH technicians focuses on fault-finding methodology so that they can diagnose and resolve issues quickly, efficiently and first-time. That minimises servicing costs and maximises uptime. Every approved technician has an ongoing personal training programme which supports their abilities and ambitions, as well as providing access to the latest information and equipment.

KNOWN COSTS

Linking warranty and maintenance programmes provides known costs and protects your investment in Case IH products by ensuring that only OEM-standard consumables/parts are used by authorised dealers. Planned Maintenance Contracts, which include servicing by factory-trained Case IH dealer technicians to optimise machine reliability, uptime, performance, operating life and residual values, are becoming increasingly popular.

Extended warranties protect against unexpected costs, can be tailored to your specific needs and when combined with a Maintenance Agreement provide known ownership costs with excellent service support.

Case IH is entirely customer-focussed and MAXSERVICE, our premium priority assistance service, complements what our dealers offer and is a major benefit to our customers. 24 hours a day, 7 days a week, 365 days a year, highly-trained MAXSERVICE specialists provide a superior support service, assistance at your busiest times, details of your nearest Case IH contact, access to parts that you cannot find elsewhere and express delivery when and where needed. We also operate a dedicated AFS Support Centre.

Case IH continually consider and evaluate not just at what is happening today, but what will be required in the future, so whatever your time-scale, we'll keep you farming!

CASE IH MEETS NEEDS OF CAMEROON CANE PLANTATIONS

With twelve Puma 225 CVT tractors and one Austoft 8800 sugar cane harvester in its fleet, leading agro-food company SOMDIAA relies on Case IH to provide the haulage and harvesting power for its sugar cane operations.

Providing 70% of Africa's employment, agriculture is the main wealth provider in most African countries. One of the leading players in the African agro-food sector, SOMDIAA focuses on producing and marketing produce including sugar, flour products and eggs, plus animal feed, in Africa and for Africa. Its corporate headquarters are in Paris, but its operations, including crop farming, livestock rearing, production, distribution and marketing, are in Central Africa, West Africa and the Indian Ocean region.

The business employs mainly local people, and sells only commodities from the production countries, contributing to the rising food self-sufficiency in the nations where it operates. SOMDIAA produces and markets various types of sugar in Africa for consumers and agro-industrial businesses, and its expertise stretches from sugar cane farming to sugar distribution and industrial transformation. Annual sugar production is 350,000 tonnes, supported by development of and investment in new technologies for cultivation and harvest.

SOMDIAA chose Case IH for both the tractor and harvester requirements for the sugar cane plantations of its subsidiary Sosucam (Societé Sucrière de Cameroun). Twelve Puma 225 CVT tractors and Austoft 8800 sugar cane harvester are presently working in Sosucam's plantations in Nkoteng, Cameroon, where it also operates a Case IH Steiger 550 tractor.

"The Puma 225 CVT tractors and the Austoft 8800 cane harvester met all our requirements," says Arnaud Marrier d'Unienville, technical director of agricultural machinery for SOMDIAA Group.

"They are simple to operate, minimising the chances of operator error, preserving our investment and reducing downtime."

PRODUCTIVITY AND QUALITY

"The Austoft 8800 has all the technical specifications we require, including dual rows, controlled traffic, yield measurement and losses reduction. Productivity and harvested crop quality are excellent, while the Maestro joystick steering control and the AutoTracker cutting height system have really impressed our operators."

The exclusive factory-fitted AutoTracker helps minimise cane losses, with cane stalks being cut at ground level, and the base cutter height controlled either by the operator or automatically by the AutoTracker, which consists of two rotating discs, each with five blades. Cutter angle can be adjusted from 12.5° to 17.5°. On average, the AutoTracker reduces 'stool' damage by 27.2%, root ripping at row-ends by 28.3%, and overall cane losses by 62.9%. This is particularly important as cane is a multi-year crop.

At Sosucam, the Puma tractors, equipped with RTK GPS guidance, carry out tasks ranging from land preparation to harvest haulage. According to Eren Oğuzoğlu, Business Manager Case IH Africa, there are some key features of both these and the Austoft harvesters that meet the specific needs of Cameroon farmers.

EFFICIENT HARVESTER

"The Austoft 8800's advanced features mean the efficiencies that can be gained in the field can be highlighted in a very detailed way.

"As well as yield monitoring, it's possible to know if one machine spends more time unloading than others, or identify those machines that unload more while moving, from operating data downloaded via a USB stick. This can save significant harvesting hours.

"But in addition to capacity and performance, it's important that operators are comfortable, as they work long hours and are harvesting at high workrates of 28-48 tonnes/hour."

He also underlines the advantages of the continuously-variable transmission in the Puma 225 CVT (badged CVX in Europe).

"Reliability and durability are essential, and with four mechanical ranges the CVT also maintains a high ratio of mechanical drive for maximum efficiency."

But for both the harvester and the tractors, what is most important is full after-sales service support, says Arnaud Marrier d'Unienville.

"This is essential, and since we received our new equipment the support we have received has been outstanding."

Arnaud Marrier d'Unienville (left) and Kano Guy, maintenance and operation chief.


Jack Gaertner

QUADTRACS SAVE

PRECIOUS SOILS AND PROFITS IN AUSTRALIA

Too much wheel slip on sand hills, resulting in erosion and uneven crops, encouraged Tim and Richie Gleeson to look at tracks. They grow wheat, barley, lentils, chickpeas, lupins and canola on 18,000 hectares at Natya in Victoria. In early 2015, they bought two Case IH Quadtrac 600 tractors.

Farm manager Scott Gladman says, "We have big sand hills and were getting a lot of wheel slip climbing them with tyre tractors. We'd have to drive up where the sand hill wasn't as steep, and sow down it. That's just not as productive; we were also running over what we'd already seeded, and crops in those areas often didn't come up. It was really impractical."

Since delivery, the Quadtracs have done well over 2,000 hours of seeding and harvesting. "We've worked them, and haven't had an issue. In the long run, per hectare it works out cheaper. They do exactly what we bought them to do. We haven't had to seed down a single sand hill since — at all. We just go straight up and over, no problem."

ONE OF THE FIRST QUADTRACS

Ed and Fiona Simson in New South Wales were among the initial owners of the first model, a Case IH Quadtrac 9370 – and have had similar experiences. Their farm spans 5,000 hectares, growing wheat, chickpeas, canola and barley in winter, with sorghum and mung beans in summer.

"It was brilliant for us because compaction and wheel slip just disappeared." After nearly 20 years, the Simsons have just replaced it with a Steiger Rowtrac 400. "We went for the Rowtrac for its three-metre track spacings because we are on three metre tramline tracks, and of course it has GPS and all the other refinements. Again the tractor's 'pull-ability', its ability to get the power onto the ground and go wherever with ease is so useful for us".

Ed says they knew they would choose tracks again. "I guess it was a bold move to begin with back in '97, but we thought the Case IH looks good, we liked the articulated tractor, we liked the whole thing, and the four tracks are better than two.

> ***"Our family always had International Harvester, and then Case IH. Now, we have two Magnums, an 8120 Axial-Flow combine and even a little front-end loader Case IH tractor. Everything is Case IH here. I've had a few other things but I've always gone back to red. We reckon it's better."***

PUMA CARRIES THE LOAD, DAY IN DAY OUT

Jack Gaertner bought one of the first Case IH Puma 210s in Australia; a 2007 model. "We mainly use it for spraying, we do a bit of loader and spreading with it too," he says. His family have been farming about 75km north of Adelaide in South Australia, for almost 70 years, and grow peas, canola and barley as well as wheat.

"The Puma has the horsepower we need, plus the 50k road gear which makes it easy moving from property to property." He says he's also impressed by the Puma's low fuel consumption. "It saves time on the road, because it's got the higher gears, and can travel faster. Some of the roads are fairly rough but the Puma makes it a lot more comfortable."

For Jack and his father Roly, a key benefit is knowing the Puma will get the job done for them. "It's nice to be able to just hop in, start it up and know it's going to go." He also appreciates the self-steering. "That helps out of sight. Once the EZ-Steer is set all you have to do is turn at the end, so it does make life a little bit easier!"

Jack has his eye on another Case IH tractor down the track. He says he knows he can trust the Case IH brand. "These things just seem to keep going and going – they don't give us a lot of trouble, they never have."

AND TRACTOR MADE THREE

AT INTERNATIONAL WEDDING IN WILTSHIRE

When Wiltshire farmer's daughter Fenella Parker married New Zealand farmer Jonathan 'Johnny' White, there was a surprise form of transport waiting outside to take them to the wedding breakfast - a brand new Case IH Puma 150 provided by local dealer GCS Agricentre.

The wedding not only marked the start of married life for the happy couple but brought together two families who have a long-standing allegiance to Case IH agricultural equipment.

Fenells's parents, Harry and Jane Parker, farm 750 acres on The Stourhead Estate at Home Farm, Stourton near Warminster. They rely on Case IH Magnum 7220 and Maxxum 5150 tractors, together with an Axial-Flow 2188 combine harvester, to help them produce oilseed rape, winter wheat, winter barley and spring barley, as well as grassland for a herd of pedigree Limousin cattle and a flock of Exmoor sheep.

Jonathan farms with his father Jeff and brother Thomas on 1,185 acres at Edgeworth Eiffle, Ashburton, south of Christchurch on New Zealand's South Island. Their fully-irrigated property on the Canterbury Plains grows wheat, barley, ryegrass, fescue, clover, peas, radish, linseed, kohl rabi, chives and Chinese brasicas. Like the Parkers, they rely on a fleet of Case IH machinery, including Magnum 280, Puma 225, Maxxum 140 and Case 895 tractors, plus an Axial-Flow 7230 combine.

Fenella and Johnny met in June 2013 when Harry and Jane Parker hosted a visit by seven New Zealanders, who stayed with them overnight and toured the farm the following day. Fenella, the youngest of five daughters, was working as a teaching assistant at the time and came home to meet her

parents' international guests. Harry says it was love at first sight.

"Our first memory of Johnny was seeing him standing in a corner having just set eyes on Fenella and being a tad dumstruck! They met for less than twelve hours, but Johnny knew she was the girl he was going to marry and rang his mother in New Zealand in the early hours of the morning to tell her.

"Johnny returned home, but was in constant touch with Fenella. Over the next two years he came over here to help with harvest and she went to New Zealand on a work visa. They got engaged in June 2016 whilst back in England, in the famous Stourhead Gardens, then came home to be married on 17th June 2017. Jane and I were amazed that 60 New Zealand guests made the trip over from the South Island, mainly farmers from Christchurch and the Canterbury Plains."

Apart from his new wife, Johnny's passion is Case IH equipment, which was evident at the wedding, at which Fenella's four sisters were bridemaids. Fenella was taken to church in a most elegant carriage drawn by two black stallions, which then took the newly-weds from the church to a champagne reception at Stourhead House. But, unknown to the happy couple, parked outside the Palladian mansion was a brand new Case IH Puma so that Johnny could drive his new bride to the wedding breakfast at Home Farm in style.

"The delight on Johnny's face was incredible," Harry enthuses. "He actually kissed the Puma when he realised that he was going to be able to drive it! From two horse power to 150, we all know which Johnny preferred!"

Nick Pike from GCS Agricentre added: "The Parkers have been good customers for many years, so we were delighted to be able to provide them with one of the latest Case IH tractors to use on this happy occasion."

CASE IH TRACTOR TAKES REVERSING RECORD

An Irish farmer driving a Case IH machine has broken an unusual world record – for reversing a tractor and trailer.

Patrick Shalvey, a dairy farmer from Cootehill, County Cavan, smashed the existing Guinness World Record by 2.8km, using a classic Case IH 956XL tractor from the late 1980s to travel backwards for a total of 20.16km along the N3 road in Cavan, which had been officially closed to other traffic for the attempt. The journey took two and a half hours.

Footage of the attempt and GPS tracker information were sent to Guinness World Records for verification, and the organisation's adjudicator Jack Brockbank confirmed that Patrick had broken the record. To qualify and be officially recognised, the entire journey had to be done in reverse using a commercially available tractor and trailer with no modifications.

The previous record was also held by an Irishman, Kerryman Eamonn Hickson, who in August 2014 covered 17.36 kilometres.

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* Terms and conditions apply. Subject to a maintenance contract, 3yrs or 3,000hrs maximum. Selected Maxxum models only. ** Terms and conditions apply. Offers on Optum CVX, Puma and Maxxum end on 31st October 2017. Best offers on Quadtrac and Magnum Rowtrac end on 30th November 2017.