

“ The products will fully integrate into precision farming platforms aimed at improving customers’ precision, productivity and profits. ”



# Latest innovations at Cereals

## Machinery Summer show preview

Arable farming is not only at the cutting edge of technology, it's driving the development and innovation of new machinery, practices and science. Arable shows are a vital window for growers to get the latest info to stay in-the-know. *CPM reports.*

*By Melanie Jenkins and Ruth Wills*

Farmers attend shows for many different reasons: From wanting to scope out the latest kit to meeting reps, reuniting with friends, or getting some expert advice on best practice techniques.

Though arable events are a big draw in themselves, it's the technology and machinery that exhibitors will be showcasing throughout the next few months which will help farmers step into the future.

*CPM* takes a look at the upcoming Cereals Event (12-13 June), along with a number of machinery manufacturers, product developers and the latest science that is being promoted across the country throughout the next few months.

### Cereals 2019

With a range of different attractions to draw in visitors from across the arable industry, this year's Cereals Event promises to offer advice, experiences and the chance to test some kit at its site in Boothby Graffoe, Lincs.

Cereals has been a staple event in the farming calendar for over 40 years, and has brought some of the most cutting-edge research, machinery and knowledge into farmers' reach.

This year promises to be no exception, with a number of new additions, exhibitors, speakers and live demos. Alongside new product launches and interactive experiences, there's something for every visitor.

So what are the key things to see at this year's event?

### NIAB Soil Pit

The Soil Pit is a well-established feature, offering visitors a chance to step down and discover a unique perspective of soil structure and cover crop mixes.

Soil health and structure are the basis for any successful crop and it's an especially hot topic right now with the launch of the Government's 25-year environment plan, which has put the subject firmly in the spotlight.

The NIAB Soil Pit is designed to show farmers what really goes on below ground level and how to tackle some of the most important soil issues.

### Live talks

With over 100 expert speakers and lively debates planned for the AHDB Theatre, visitors will be able to listen to and discuss a range of interesting topics.

Whether farmers want to get an in-depth analysis of the latest Brexit news or trade trends, the AHDB Cereals Controversial marquee will provide all the information they need. In the targeted sessions, visitors will be able to pick up advice from key decision makers involved in regulating the changes.

Visitors will also be able to pick their top seminars in the Conservation Agriculture, Innovation and Technology Theatres. Topics will include nitrates in water, zero-till, safeguarding glyphosate, health and safety and using biologicals for pest and disease ▶



At the heart of the Chafer Defender self propelled sprayer is a Bosch Rexroth hydrostatic drive train.



**NEW CR REVELATION**  
 WITH INTELLISENSE™ COMBINE AUTOMATION

# THE SIXTH SENSE OF HARVESTING.



## NEW INTELLISENSE™ COMBINE AUTOMATION



EASY SETUP



CONSTANT CHECKING



OPTIMIZATION EVERY 20 SECONDS



INCREASED PRODUCTIVITY

EVERY 20 SECONDS THE INTELLISENSE™ SYSTEM WILL SELECT THE BEST ACTION OUT OF 280 MILLION POSSIBILITIES. SIT BACK, RELAX, AND LET THE NEW CR WITH INTELLISENSE™ TECHNOLOGY MAXIMIZE YOUR HARVEST.

New Holland's IntelliSense™ system equips the CR Revelation range with a proactive combine automation system. This automated system enables the combine to react in a faster and more uniform manner. Groundbreaking technology including a first-ever cleaning shoe load sensor is coupled with the next generation GrainDam™ and automatically adjustable full-length Dynamic Flow Control™ rotor vanes so that the system can make reactive adjustments before overload or losses are even on the horizon.

NEW HOLLAND TOP SERVICE 00800 66 111 111. GET SUPPORT AND INFORMATION.  
 The call is free from a land line. Check in advance with your Mobile Operator if you will be charged.



[www.newholland.com/uk](http://www.newholland.com/uk)





# Summer show preview



To celebrate the 100-year anniversary of Fiat tractors, New Holland has released the Centenario limited edition range, which includes the Centenario T5.



The TH Series telehandlers have a new electronic modulation transmission and across six models there are now 14 different versions.



The X8 VT-Drive is McCormick's top model and has either a 157-litre or 212-litre/min variable output piston pump.

► control, as well as data-driven farming and alternative weed management.

Frederick South, UK business manager at Sencrop, will be discussing the new generation of weather stations. These give real-time support to help with decision-making by providing information on temperature, rainfall, humidity, leaf wetness

and wind speed. Attendees will also find out how the stations work collaboratively with neighbouring farmers from their individual field stations.

Biologicals will be discussed by Prof Rob Edwards from the University of Newcastle, comparing the effectiveness of synthetic and biological products on different wheat varieties in terms of disease resistance, yield and quality. Biologicals work similarly to probiotics in humans and therefore help to strengthen the plant's natural resistance.

In a session led by James Lowenberg-DeBoer, professor at Harper Adams University, the economics of agricultural robotics will be discussed. As the agricultural industry transitions towards precision agriculture there are advancing technologies in robotics. Farmers will find out the most interesting robotic solutions available as well as the associated challenges and opportunities.

Pesticides are an important part of managing pests and diseases in the UK, however with difficulties registering active substances it has become more challenging. So how can biofumigation help? It involves the incorporation of fresh plant mass into soil which releases substances that can suppress soil-borne pests. This session, led by Matthew Back from Harper Adams University, will look at the investigative work they have undertaken on potato cyst nematodes, stem and bulb nematodes and *Fusarium graminearum*.

## Crop plots

The heart of the Cereals Event, the crop plots offer visitors the chance to view new varieties and practices for a huge selection of crops. Learn about the pros and cons of different options, and compare and analyse competing varieties.

Farmers will also get the opportunity to interact with over 20,000 like-minded visitors; learn from their personal experiences and discover alternative methods that could help to improve their businesses.

## Coreteva Agriscience

Coreteva Agriscience will be launching its new active substance — Inatreq — as the first new target-site chemical to be introduced into the cereal fungicide market in over a decade. This comes at a time when new fungicide solutions will be critical for managing *Septoria tritici* resistance issues, says Coreteva. Inatreq is said to provide strong protectant and curative efficacy in wheat against *S. tritici* with good protectant activity on yellow and brown rust.

## KWS

KWS has two new hard winter feed wheat varieties — KWS Kinetic and KWS Parkin.

KWS Kinetic — a cross of Reflection and Silverstone — boasts a yield of 105% in trials, good disease resistance, stiff straw, mid maturity and orange wheat blossom midge resistance. "Interest so far suggests this will be a popular variety and seed will be widely available this autumn," says Will Compson of KWS.

KWS Parkin is a cross of Reflection and Costello and has yielded 103% in trials across all regions, but has performed particularly well in the West and North, says Will. Although it's stiff-strawed it stands at just 78cm making it one of the shortest varieties available.

## New miscanthus variety

Athena, a new miscanthus variety, is being launched by Terravesta at Cereals this year. Performing well in trials with yields 62% above the standard variety, it produced 8t/ha in the first harvest and 12.5t/ha in the third year. Although historically miscanthus crops have been harvested in year three, improved planting techniques and hizome quality have enabled earlier harvests in year two, giving farmers a faster return on investment and increased margins, says William Cracroft-Eley, chairman at Terravesta.

"The results of the trials are remarkable. Not only does Athena produce a higher yield than standard *Miscanthus giganteus*, it's also more uniform so yields are more stable and the biomass quality improved," he adds.

## Senova

Joining Senova's portfolio is Valerie, a new two-row winter feed barley, as well as Cosmopolitan, a spring barley with potential



The X7 P6-Drive and VT-Drive models are available with the new P6-Drive semi-powershift transmission in addition to the stepless VT-Drive alternative.



for brewing. Also on show will be Hexham, a group four spring wheat and Elison, a spring oat with stiff straw, says Senova. All four were added to the AHDB Recommended List last year.

Valerie joins the list with a yield of 102% against the control, a high specific weight and low screenings, with good disease resistance and standing ability. Cosmopolitan has a yield of 106%, making it the highest yielding spring barley with malting potential and the only new one to be recommended this year. RL scores suggest it combines high yields with short, stiff straw and good lodging resistance.

Elison, the only new spring oat variety on the AHDB RL, stands out for its high yields and score of nine for resistance to lodging.

Hexham brings yields of 105% and boasts the highest yield of any spring wheat when sown late in the autumn. It also offers an untreated yield of 94%.

## Live demonstrations

A range of live demos will be on offer, where tractors, cultivators, drills and subsoilers will be put to the test to compare power, productivity and performance.

Being able to see machinery in true working conditions will give visitors a

valuable insight into what could work for them.

In the Ride and Drive Arena, visitors will be able to jump into the driving seat and get a hands-on experience of the latest machinery, technology and equipment to improve farm productivity and operations.

With the expert guidance of qualified representatives, visitors will be taken through all the settings and have questions answered, while enjoying the ride.

## Chafer Machinery debut

Chafer Machinery will be debuting its latest self-propelled sprayer at Cereals. The Chafer Defender has the same spec as its larger cousin, the Interceptor, but has reduced tank capacities and boom widths — making it suited for the smaller size self-propelled market, says the company.

At its heart is a Bosch Rexroth hydrostatic drive train, which has a CTV transmission claimed to allow for precise and variable control of each wheel motor, for ease of use both in-field and on-road.

This transmission features automatic dynamic traction force distribution, which compensates for changes in terrain, automatically adjusting each wheel motor's displacement to give maximum traction and



*The Leeb 4 AX trailed sprayer is equipped with Horsch's BoomControl Eco system.*

ensure hill climbing and descending are controlled at all times. Power for the Defender comes via a Deutz Tier 5 engine, offering 180hp.

The Defender has Chafer F-Series booms, either as twin folding 24m or triple folding at 27m, 28m and 30m widths and is fitted with stainless steel tanks from 3000 litres to 3500 litres.

## New Holland

New Holland will be present at a number of events in the coming months, including Cereals, the Royal Highland and Royal Welsh Show.

To celebrate the 100-year anniversary of Fiat tractors, the manufacturer has ▶



**A Lynx-equipped tractor  
is ready for anything...**  
(well almost)

Take the capability of your tractor into new territory with Lynx. Our accessories can equip any make or model for virtually any challenge.

- Front Loaders
- Front Linkages
- Front PTOs
- Weights

- Rubber Tracks
- Front Presses
- Pick Up Hitches





# Summer show preview



Due to the Avatar's high tare weight, the new single disc coultter is designed for direct seeding.



The Serto SC compact seed drill for large farms with working widths of 10m and 12m.



The Aurock triple disc seed drill can establish crops under cover in both min-till and direct drilling conditions.



Using an improved seed selection and ejection system, the Maxima 3 allows for accurate seed placement at working speeds of up to 6.2mph.

► released the Centenario limited edition range, which includes the Centenario T5 tractor — noticeable by its dark red colour. Visitors to Cereals and other shows will be able to take a closer look. The commemorative tractors will be available in six utility, specialist and crawler models.

It will also be bringing its special edition CR 9.90 combine harvester with a 22m Varifeed grain header, the Basildon-built T6.180 Dynamic Command tractor, its T7 and a Bigbaler Plus.

The T6.180 has a six-cylinder engine that delivers up to 12% higher torque — up to 740Nm at 1500rpm — than the four-cylinder models, with low-end end torque claimed to help significantly in pulling-away performance, and increased torque at mid-engine speeds, which improves engine lagging in transport and field applications.

Its new TH telehandler series will also be on display. The TH Series telehandlers have a new electronic modulation transmission and across six models there are now 14 different versions. From the entry-level S version with 133hp to the Elite version, which has 146hp, hydraulic pressure release, heated air-suspension and integrated controls.

It will also be displaying other products, with a number of machines demonstrated on the working plots at Cereals.

New Holland is launching and distributing its new CNH Precision Farming after-market brand, Agxtend. Focussed on aftermarket precision farming technology solutions it's designed to benefit users throughout the cropping cycle. "The products will fully

integrate into New Holland's existing PLM precision farming platforms as an extension aimed at improving customers' precision, productivity and profits," says John Downes, precision farming specialist.

Under the Agxtend umbrella is:

- CropXplorer — A biomass sensor to determine fertiliser rates based on crop needs. Its map and overlay modes allow farmers to use yield potential maps in combination with sensors for on-the-go measurements.
- SoilXplorer — A contactless soil sensor which uses electromagnetism to measure conductivity at four different depths: 0-25cm, 15-60cm, 55-95cm and 85-115cm. These measurements can then be used for accurate soil mapping to record soil heterogeneity and determine soil type maps and relative water content maps.
- NIR sensor — This can be mounted on all types of equipment, including combines and balers.
- Xpower — An environmentally friendly electro-herbicide that allows farmers to replace chemicals with electricity for weeding and pre-harvest desiccation of crops.
- FarmXtrend App — A smart weather app, it enables farmers to monitor in-field weather data and supports a smart decision-making process. The connected weather sensors are; the WeatherXact Connected Weather Station, sensing temperature and humidity at a height of 1m and at crop level, RainXact, a connected rain gauge, and SoilXact, to record soil moisture and temperature at different depths.

## Claas performance

At summer shows this year (though not at Cereals) farmers will be able to see the latest development to the Claas Jaguar forage harvester, in the form of the Jaguar Terra Trac, which adopts the rubber tracked crawler system that has been used on its Lexion combines.

Also new for this season, the Rollant 540 fixed chamber round baler features new rollers and a stronger chassis, with the choice of net or film wrapping. It also has a new drive concept and is designed with ease of maintenance in mind. The chamber has 15 rollers and makes bales with a diameter of 1.22m and a width of 1.25m. Fitted with hardened 50mm stub shafts, which are bolted to the roller body, these can be individually replaced.

Options include the MPS II system, where three of the chamber rollers pivot into the chamber for additional bale compression, early

bale rotation, and a uniform bale shape. For operating the baler, there's a choice between the Claas communicator, the operator terminal or a tractor ISOBUS terminal.

The Disco Move front mower will also be at shows this season. It can move over a range of 1000mm independent of the tractor linkage to allow for contouring on uneven fields. The Disco 3200 Move has a working width of 3m and is available both with (FC) and without (F) a tined conditioner.

It incorporates a completely new design of headstock giving up to 600mm of upward and 400mm of downward travel for improved contour following. The mower unit can also pivot laterally from the central pivot point, which is set at a 30° angle. As a result, the mowing unit can swing backwards at a slight diagonal angle to avoid obstacles.





The CropXplorer is a biomass sensor to determine fertiliser rates based on crop needs.

## Fendt

Fendt will be bringing its Ideal model combine to Cereals, along with the Rogator 655 self-propelled sprayer and Rogator 355 trailed sprayer, which has a 5775-litre tank, with boom widths ranging from 24m to 30m.

Alongside these it will feature its 700 Series tractors, including the 237hp 724 Vario. With a power-to-weight ratio of 33kg/hp, it incorporates economic fuel usage and precision handling.

## McCormick

McCormick will be showcasing its latest range of 140-310hp tractors at Cereals. Its X8 and X7 Series come with a choice of powershift and stepless transmissions, different levels of equipment and precision farming options that include

factory-installed ISOBUS implement control and Topcon guidance, section control and variable rate applications.

The X8 VT-Drive is McCormick's top model and has either a 157-litre or 212-litre/min variable output piston pump, supported by a 115-litre/min piston pump dedicated to the steering and ancillary systems claimed to ensure the main system never runs short of flow.

The high-output hydraulics package also includes 12t capacity rear implement linkage paired with a three-speed PTO system, and fully integrated 5t capacity front links with optional PTO.

The latest addition to McCormick's range are the X7 P6-Drive and VT-Drive models, which are available with the new P6-Drive ▶



The Claas Jaguar Terra Trac, which adopts the rubber tracked crawler system that has been used on the company's Lexion combines.

## OCEANIS 2

Advanced crop protection



KUHN's high capacity OCEANIS trailed sprayer range now includes four models with tank capacities of 5000, 5600, 6900 and 7700 litres.

- All-aluminium booms with 24 to 48 metre operating widths
- Fully ISOBUS compatible
- EASYFLOW closed transfer chemical induction and automated tank rinsing for added safety in use
- STOPMIX system to avoid over-agitation and foaming
- Boom levelling system with HYBRID mode for improved performance in high density crops
- Easy-rinse polyester tanks with internal baffles for added stability



## PRECISION APPLICATION

### Multi-Spray



- Four nozzle options at 25cm or 50cm intervals
- Automated selection allows variable rate application of agrochemicals or liquid fertilisers
- Reduced overlap at headlands
- 25cm intervals allows boom height to be set closer to the crop, reducing risk of drift

forage harvesting | livestock husbandry | arable | landscape maintenance

be strong, be **KUHN**



[www.kuhn.co.uk](http://www.kuhn.co.uk)

# Summer show preview



With a 7700-litre tank, the Oceanis is available with compact, all-aluminium booms in widths of 24m to 48m.



The Rollant 540 fixed chamber round baler features new rollers and a stronger chassis, with the choice of net or film wrapping.

► semi-powershift transmission in addition to the stepless VT-Drive alternative. Both feature exhaust compression braking on all six-cylinder variants said to reduce wear and tear on the friction brakes during road travel, and a new semi-active hydraulic cab suspension option.

## BASF Real Results Farms open days

Following the success of its Real Results programme BASF has opened the doors to some of the farms involved. Attendees will be able to view 32 winter wheat varieties as well as BASF's new fungicide active ingredient Revysol. They can also discuss potential spray programmes for 2020 and gain advice from plant breeders. The open days take place throughout Jun and Jul, with BASIS and NRoSO points available.

The Real Results Farms give growers and agronomists the chance to see the latest chemistry from all manufacturers applied across 32 different winter wheat varieties in a real farm situation, says Rory Galloway, BASF agronomy manager. "This variety and fungicide interaction

## Horsch

Horsch's Leeb 4 AX trailed sprayer will debut at Cereals this year. This 3800-litre model is equipped with Horsch's BoomControl Eco system and can be specified with up to 30m booms and 50cm nozzle spacing.

BoomControl Eco enables the new Leeb AX to maintain a 50cm distance to the crop at operational speeds of up to 15km/h. The working boom widths range from 18-30m, divided in five-to-nine sections and feature 50cm nozzle spacing as standard.

Also at Horsch's stand will be the Avatar SD seed drill with single disc couler - now available in 3m and 4m working widths in addition to the 6m, 8m and 12m versions. The Avatar's high tare weight lends its design to direct seeding with its new single disc couler.

Visitors can also see the Serto SC compact seed drill for large farms with working widths of 10m and 12m; it features an all-over tyre packer combined with a heavy double-disc seed couler.

The Cruiser XL trailed cultivator with spring tine and Terrano GX universal cultivator will also be on the stand.

## Kuhn

The Kuhn Aurock will also make its debut at Cereals this year. The triple disc seed drill can establish crops under cover in both min-till and direct drilling conditions.

"Where ploughing is replaced by varying degrees of shallow tillage, or if establishment is to be achieved into an existing crop, the role of the drill becomes more crucial than ever to the success of the system," says Alex Birchall of Kuhn.

The Aurock is available with single and dual metering units. The single metering unit



The Disco Move is able to move over a range of 1000mm independent of the tractor linkage to allow for contouring on uneven fields.

version (Aurock R) has a 3500-litre capacity hopper and the double metering unit version (Aurock RC) has a 5000-litre split hopper, requires a minimum of 180hp to operate and is ISOBUS compatible.

Kuhn will also feature its Maxima 3 precision drill range, which consists of 12 models. Using an improved seed selection and ejection system, these allow for accurate seed placement at working speeds of up to 10km/h, says the company.

Visitors to Kuhn's stand will be able to see the latest 7702 model which it's added to its Oceanis trailed sprayer range. With a 7700-litre tank, it's available with compact, all-aluminium booms in widths of 24m to 48m. Fully ISOBUS compatible, it has a separate ISOCLICK control box for key sprayer commands.

## Techneat GPS

Techneat has unveiled a new GPS rate controller which is compatible with single headland control or three-way sectional control options, fitted on the Outcast V2 sprayer mounted slug pellet applicator.

"Until recently we've only been able to offer headland or sectional control with the basic non-speed related control system," says James English, technical support manager at Techneat.

A separate control box based in the cab controls the section valves and automatically reduces the speed of the metering unit proportionately when the sectional valves open and close. James says this ensures not only 100% accuracy with the application rate of the slug pellets in accordance with forward speed, but the rate continues to remain accurate even when one or two sectional valves are closed. ■



The Fastrac difference

# SAFETY



Discover unrivalled safety with the JCB Fastrac. The JCB Fastrac has more safety features than any other tractor in its class. The unique combination of 360 degree visibility, all-round suspension, hydrostatic dual steering system, high performance brakes and advanced anti-lock system (ABS) takes stability, control, ride comfort and handling to levels never seen before in an agricultural vehicle. To discover the difference for yourself, contact your local dealer or call 0800 581176.

[JCB.COM/AGRICULTURE](http://JCB.COM/AGRICULTURE)

**JCB** **FASTRAC**

Discover the difference