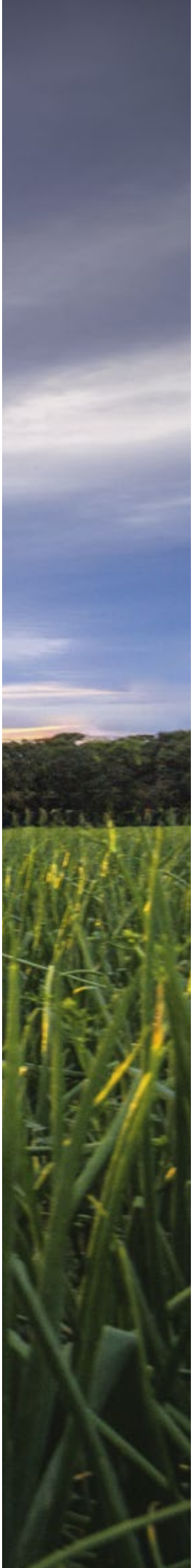
500R



JOHN DEERE

NOTHING RUNS LIKE A DEERE


JOHN DEERE
550R



PRECISION AT UP TO 30 KM/H. PRODUCTIVITY REDEFINED.

Precision at any speed transforms what's possible in the field – and the 500R is engineered to deliver exactly that. Its high-speed stability, perfect droplet control, and exceptional operator comfort work together to unlock true productivity in every pass. Spray at up to 30 km/h with confidence and protect your crops exactly as intended.

CONTENTS

Introduction 4
Cab and controls 6
PowrSpray™ 12
Booms 18
Nozzle Body 26
Nozzles 34
Precision Ag 36
Soil conservation 42
Drivetrain 44
Track-width options 46
Integrated uptime 48
Specifications 50

MORE HECTARES PER HOUR. PROVEN PRECISION.

Our 500R flagship sprayer delivers top-tier performance with precise application control, effortlessly effective rinsing, and perfect boom positioning that ensure every drop counts. From our premium cab, you'll cover the most ground in greater comfort than ever.



POWRSPRAY™

Direct rate control precision at work. Faster fills, perfect application every time – with minimal residue.

AIRRINSE™

Air power™ flushes residue to minimise clean water use. Switch applications with ease, as the 500R handles the rinsing.

CAB

Enjoy first-class comfort in a quiet, spacious cab with an integrated fridge and advanced infotainment for long application days.

ACTIVE BOOM CONTROL

Keeps the boom steady with active roll and yaw control for consistent spray accuracy at any speed.

XTRAFLEX SUSPENSION

Independent suspension per wheel, absorbing impacts so you don't have to. Smoother rides mean stable booms, consistent application, higher speeds, and less fatigue.

EXACTAPPLY™

Pulse Width Modulation (15/30 Hz) enables faster application where field conditions allow, while maintaining precise rate control and a consistent droplet size. The result is pure productivity gain – without compromise.

PRECISION TECH

With G5^{Plus}, integrated StarFire™, and the John Deere Operations Center™, every pass is logged automatically – giving you simple, accurate crop documentation without any extra steps.

BOOMTRAC™ PRO 2

Perfect boom height accuracy means perfect coverage, reducing waste and protecting crops.



COMMANDDRIVE™

Advanced RPM optimisation adjusts the engine speed based on conditions to maximise fuel efficiency.

UNCOMPROMISING PRECISION AND COMFORT

EXCEPTIONAL PRODUCTIVITY

OPERATOR FIRST

You spoke, we engineered: Our operator research revealed three key priorities – superior comfort, enhanced visibility, and intuitive control. The 500R cab delivers on all fronts.



LARGE
REFRIGERATOR



KEEP IT COOL

Unlike a simple cool box that needs pre-chilled items, the onboard fridge works just like the one you have at home and cools down warm items.



COMFORT AND 360° CONTROL

From slim cab pillars to sweeping windows, your view commands everything – from boom tip to boom tip. The whisper-quiet interior creates your perfect workspace for taking hands-free calls, enjoying music, and focusing on the task at hand. Premium climate control with adjustable ventilation and warm airflow to your feet keeps you comfortable, especially during early-morning applications. In a 500R, peak performance starts with operator comfort.

QUIET BY DESIGN

Built for operators who spend long days in the seat, the 500R cab gives you the quiet, focused environment you need to stay productive. Reduced noise levels help you concentrate on your work, and stay comfortable from the first pass to the last. When the cab stays calm, so do you – all day long.

3.35 M³
SPACE



LONG DAYS MADE EASY

You've arrived. A cab with room to breathe. Floor-to-ceiling glass and slim pillars for a clear, open view. Seamless smartphone connectivity. Intuitive controls. Plus a smooth, comfortable ride. We've completely re-imagined the operator experience.





BREATHE EASY, SPRAY SAFELY

The fully pressurised cab with Cat. 4 filtration shields you from chemical exposure during spraying operations. On hot spring days, the precision climate control keeps you cool and comfortable all day.

CONVENIENT POWER

Your 500R cab features conveniently placed 12V and USB ports for all your power needs. Connect additional screens or charge devices – right where you need them.

10

USB/12V OUTLETS

CLEVER STORAGE

Find the perfect spot for all your items throughout the cab – from armrest compartments to behind-seat storage. Keep smartphones, keys, and larger items organized, with dedicated holders for your hot and cold beverages.



PREMIUM INFOTAINMENT

Connect your devices via Bluetooth®, enjoy radio, stream your content, and make hands-free calls while staying focused on your work. Experience crystal-clear sound quality in the 500Rs whisper-quiet environment.





SMARTPHONE INTEGRATION

Apple CarPlay and Android Auto put your smartphone to work. Make calls, handle messages, access your music, and use voice commands – all integrated into your cab's system.

CONTROL. PERFECTED.

The multifunction handle puts precision, power, and productivity right where you need it – at your fingertips.

MULTIFUNCTION HANDLE

It's like an extra arm or two, just as responsive and ready. Control speed and park brake with a simple push or pull while executing essential spraying functions through intuitively placed buttons. Need more? Combine it with the foot switch for additional capabilities, all without taking your eyes off the field ahead. It's not just control – it's confidence in every movement.



COMPREHENSIVE COMMAND

INTUITIVE EASE



360° LED LIGHTING

See more, do more with LED lights that cut through darkness with twice the brightness of halogens. When your workday doesn't end when the sun sets, neither will your productivity.

EYES EVERYWHERE

The Ultimate Visibility Package connects the front-left wheel, reversing, and center-frame spray pattern cameras directly to your G5^{Plus} Command Center™ display for complete situational awareness.



VISIBILITY

PACKAGES

From dawn 'til dusk and beyond, choose maximum productivity from Select to Ultimate Visibility Packages. Pair with our Comfort and Convenience Cab options to create your ideal command centre.

1 | Routine spraying operations
2 | Engine
3 | Transport & Chassis
4 | Spraying operations
5 | Infotainment
6 | Lights

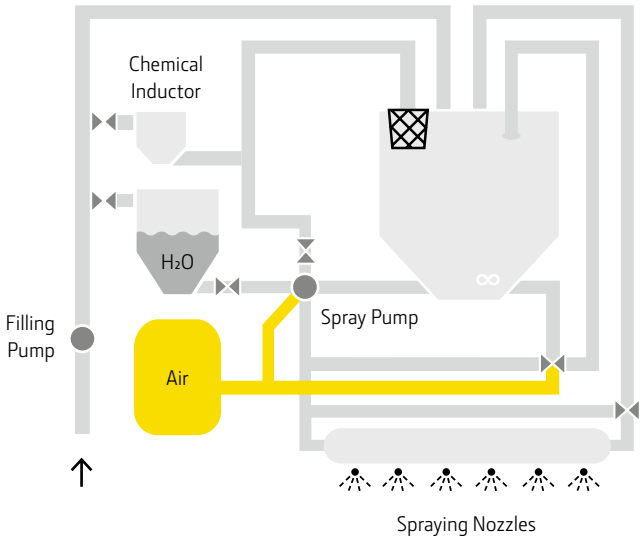
POWRSPRAY™ PRECISION

Experience unmatched precision and efficiency with PowrSpray™. Its dual-circuit design, fast reaction times, and zero-maintenance pump system work together to deliver quicker fills, cleaner tanks and consistently accurate application – all with effortless, push-button control.



6,000 LITRES

IN LESS THAN 6 MINUTES

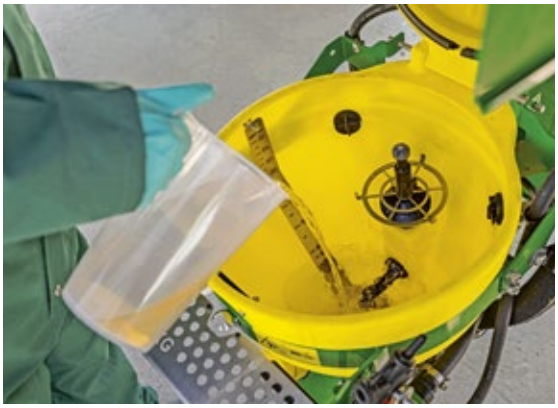


PowrSpray™ – Its unique 2-circuit design facilitates fast and efficient filling, application and agitation, with push-button control.

DUAL-CIRCUIT DESIGN

PowrSpray™ uses two fully independent circuits – a powerful 1000 l/min spray circuit and a separate 1200 l/min filling circuit. The filling circuit never contacts chemicals, reducing residue by 45% and ensuring faster, cleaner changeovers. Both pumps run independently of engine RPM, improving fuel efficiency and lowering noise.



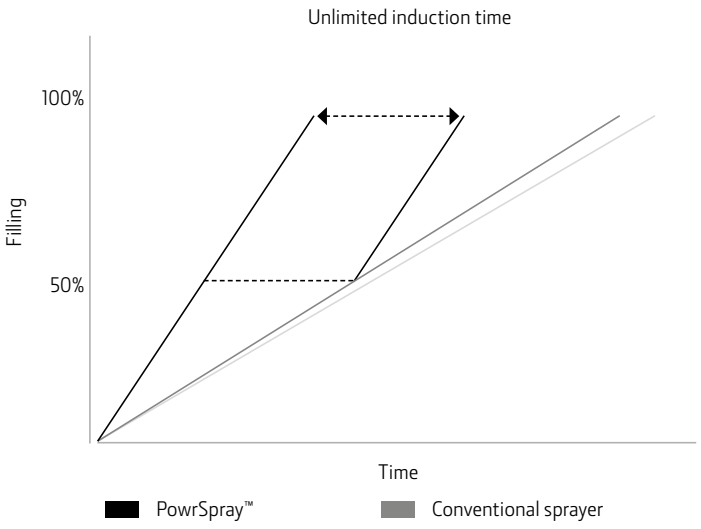


FAST & STRESS-FREE FILLING

With up to 1200 l/min filling capacity, PowrSpray™ gets you back to spraying fast. The Active Pause feature lets you add and measure products at your own pace while clean water remains available for rinsing containers. This streamlined workflow simplifies every refill and keeps productivity high in tight spraying windows.

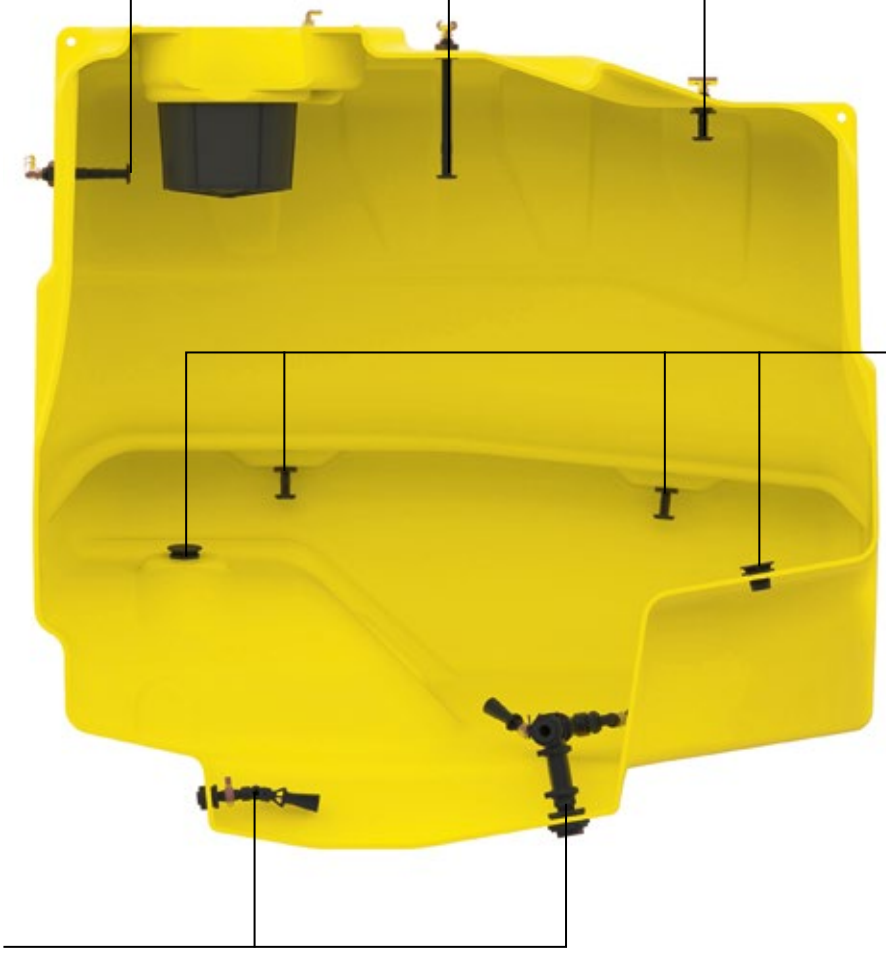
ACTIVE PAUSE

Active Pause gives you the time and confidence to measure and add products precisely – with clean water always available for rinsing tools and containers. Because the filling circuit stays separate from the spray circuit, the whole process remains safe, tidy, and fully under your control. And when equipped with a Closed Transfer System, chemicals can be inducted cleanly and securely without exposure or spills – adding another layer of protection and convenience for every refill.



PRECISION IN MOTION

PowrSpray™ keeps your mixture perfectly conditioned and your application consistently accurate. With intelligent agitation control and ultra-responsive rate adjustment, you maintain the ideal spray quality – no matter the speed, conditions, or tank level.



3

DEFLECTOR PLATES FOR RINSING

4+4

DEFLECTOR PLATES FOR AGITATION

VENTURI AGITATION NOZZLES



SMART AGITATION

PowrSpray™ delivers efficient, fully controllable agitation at any engine speed, keeping your tank mix uniform from the first pass to the last. Agitation intensity can be adjusted directly from the cab, and the system automatically reduces power as the tank empties to prevent foaming. A dedicated high-power mode re-suspends settled product after weather delays or long breaks.

CONSISTENT MIXTURE

By running independently of RPM, the agitation system maintains optimal performance even at high transport speeds or during low-RPM operation. This ensures uniform spray quality throughout the job, prevents sediment buildup, and keeps the mixture perfectly blended. Your application stays reliable and repeatable, regardless of field conditions or operating speed.



DIRECT RATE CONTROL

PowrSpray™ reacts instantly to speed changes, maintaining the correct pressure and reaching the target rate in 98.3% of all cases. While diaphragm pumps lag behind, Direct Rate Control reacts instantly – maintaining the right pressure and adjusting output in seconds to prevent over- or under-application. This precision is especially valuable at higher spraying speeds or when opening nozzles one by one at the headland. With the spray pump independent of engine RPM, precision stays consistent and efficient.



RINSING MADE EASY

Rinsing and dilution on the 500R are designed for maximum simplicity, efficiency, and control. With multiple automated modes, a 500 l rinse tank, and advanced features like AirRinse™, you can clean your sprayer faster, use less water, and stay fully in control – from the cab or operator station.





SMART WATER MANAGEMENT

A dedicated 500 l clean-water tank ensures sufficient capacity for efficient rinsing. Refilling is simple: one connection fills both the main tank and the rinse tank at the same time. Combined with the PowrSpray™ system, which reduces residual volume by up to 45%, every litre of water is used efficiently – saving time and resources.



EFFORTLESS RINSING CONTROL

Operate all rinsing functions directly from the cab or from the operator station. Multiple automatic rinsing modes are available at the push of a button – from quick boom rinsing to full system cleaning. The machine continuously informs you of the process, giving you full confidence and control throughout every step.



AIRRINSE™ EFFICIENCY

AirRinse™ uses existing air components to remove residual spray liquid from the system, further reducing the need for clean water. Whether performing a quick boom rinse or a full dilution cycle, the system minimizes water consumption while maintaining effective cleaning. Automated rinse and dilution cycles ensure reliable results and complete peace of mind.



STRONGER.
SMARTER.
LIGHTER.

The new 500R boom generation is engineered for high-speed spraying with maximum stability. A reinforced center frame, U-profile design, and fully protected plumbing deliver a cleaner, stronger, and lighter boom that stays reliable season after season – even in the most demanding conditions.



STRONGER BY DESIGN

Every internal boom element is built using a U-shaped profile, creating a structure that is lighter yet stronger than conventional tube-shaped booms. Two stainless-steel pipes and completely internalized plumbing create an exceptionally clean design – no exposed cable ties, no vulnerable harness routes. The protected layout reduces wear, chemical exposure, and crop contact while maximizing long-term durability.



SMART FOLDING PROTECTION

Folding cylinders are positioned safely on the outside of the hinge to reduce the risk of damage. Each hinge point is hydraulically locked automatically, turning double- or triple-fold booms into one solid, rigid structure during spraying. The new base breakaway, made from lightweight aluminum, weighs just 40 kg and is engineered to carry any plumbing for unmatched robustness.



BUILT TO EVOLVE

The 500R boom is designed for future upgrades, allowing operators to move from Individual Nozzle Control to Individual Nozzle Control Pro or ExactApply™ without replacing the boom. Nozzle spacing can transition from 50 cm to 25 cm with ease. BoomTrac™ Pro 2 height sensing is built in – featuring five sensors up to 36 m and seven sensors on larger widths – ensuring compatibility and performance today and tomorrow.



STABILITY AT ANY SPEED

The new center frame combines intelligent hydraulics with active sensing to keep the boom composed in all conditions. An IMU monitors every movement and proactively controls anti-yaw via additional chambers in the folding cylinders, as well as anti-roll cylinders – delivering smooth, predictable boom behavior even at higher spraying speeds.



PROACTIVE STABILIZATION

An advanced IMU continuously measures boom motion. Anti-yaw is actively controlled through the folding cylinders, while new hydraulic cylinders counteract roll in real time. This proactive stabilization keeps the boom centered and calm, boosts accuracy, and supports high-speed spraying across uneven ground or in challenging terrain.





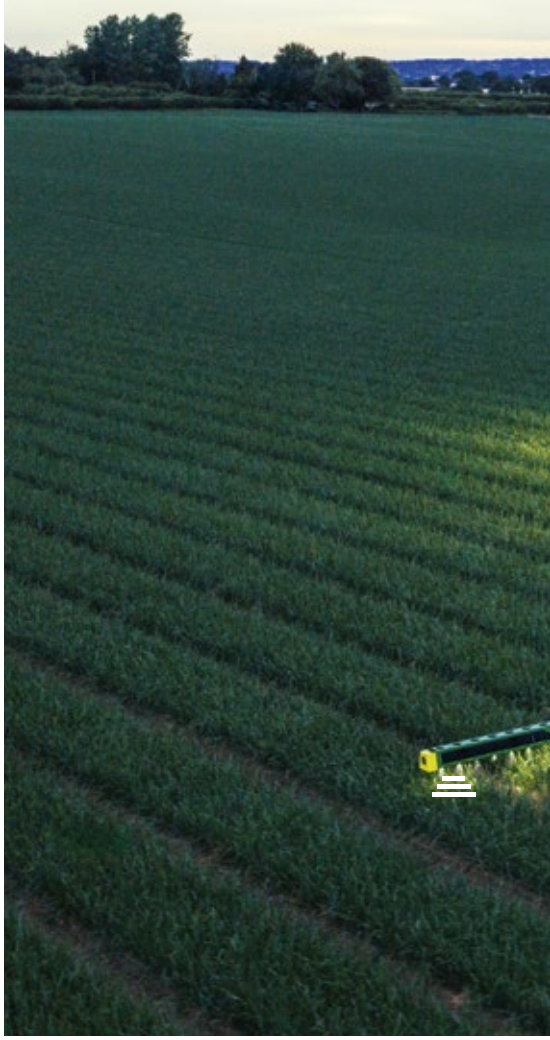


ACTIVE BOOM CONTROL

The hydraulic system reacts instantly to unwanted movement. Sensors anticipate yaw and roll before they affect the boom, and proportional control corrects them gently to maintain the ideal working position. This active management reduces drift risk, protects spray quality, and keeps the boom level – no matter how fast you operate or how variable the terrain becomes.

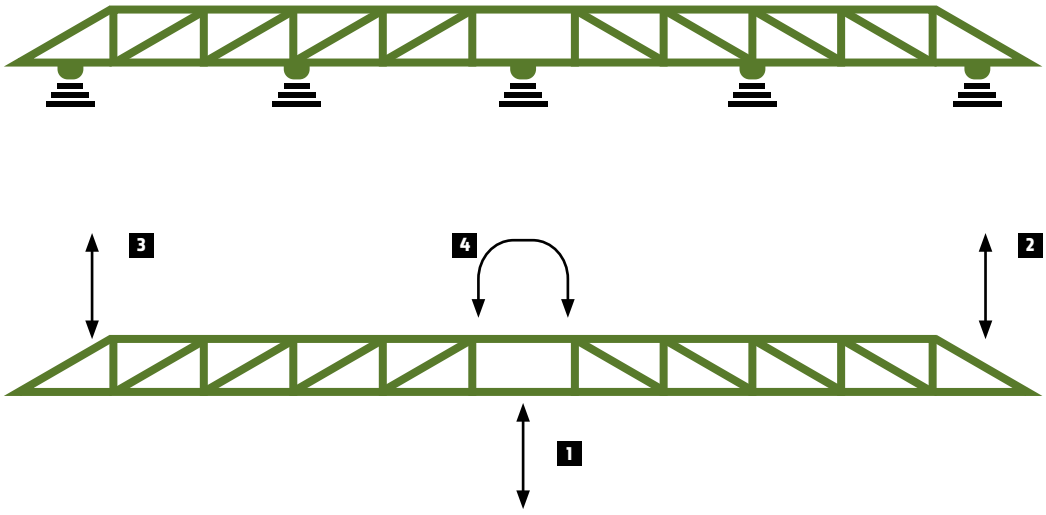
PROTECTED INSIDE

All spray lines, stainless-steel tubes, and electrical harnesses are routed inside the boom. With no external ties or exposed components, the system is shielded from chemicals, crop friction, and mechanical stress. The clean routing reduces wear, lowers maintenance requirements, and extends the lifetime of the entire spray system.



PERFECT BOOM ALIGNMENT

BoomTrac™ Pro 2 delivers precise height and geometry control in any field conditions. With up to seven sensors and full integration into the Headland Management System, it keeps the boom at the right height and angle automatically – minimizing drift and maximizing accuracy, even on tight headlands.



1 | Height control
2 | Whole-boom roll (tilt) control
3 | Variable geometry control
4 | Active center frame control

CONTROL EVERY AXIS

Boom geometry is controlled across all critical axes: height, roll, variable geometry, and active center-frame motion. The system maintains the boom's ideal working position, allowing precise, uniform coverage – even when entering corners, changing speeds, or navigating uneven terrain. The result: consistent spray accuracy and uniform droplets across every section.





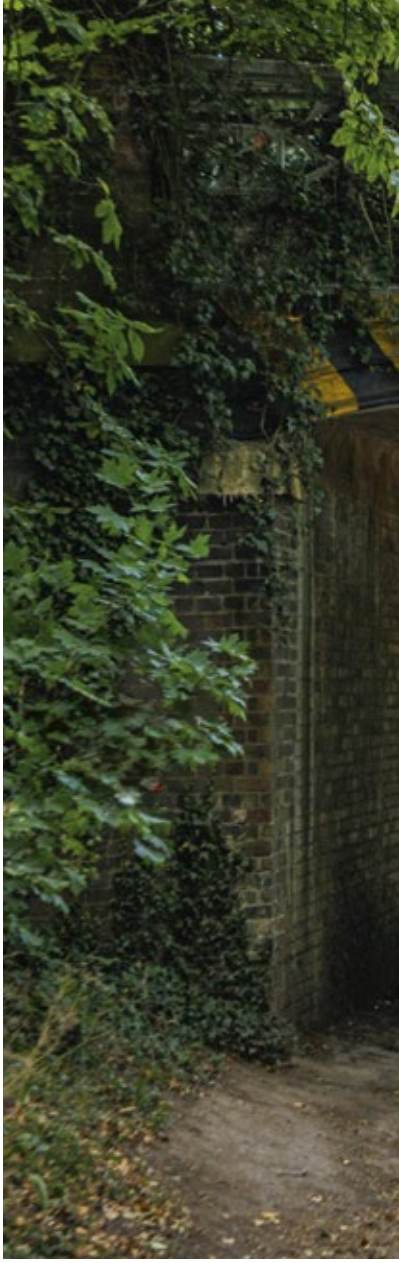
SMARTER BOOM CONTROL

Five to seven boom-height sensors measure field contours continuously to keep the boom positioned accurately across slopes, ridges, and changing crop canopies. The system reacts instantly to maintain consistent application height, reduce drift, and support higher spraying speeds without operator input.



HEADLAND AUTOMATION

BoomTrac™ Pro 2 is fully embedded in the Headland Management System (HMS™). The sprayer can automatically lift or lower the entire boom – or only the wing tips – during headland turns. This automation reduces operator stress, protects the boom, and ensures smoother transitions between field zones while maintaining the correct height.



COMPACT BY DESIGN

Whether double or triple folding, the 500R boom stays within the 2.55 m transport width – every time. Fast hydraulic folding, optional AutoLube for the boom's center frame and chassis, and precision-built mechanics ensure fast, reliable transitions between transport and field with minimal effort.



ALWAYS READY TO PERFORM

The optional AutoLube system keeps the boom's center-frame bearings perfectly greased at all times. And because the 500R boom uses greaseless bearings along its entire length, you eliminate around forty traditional grease points – saving valuable time every week. AutoLube can also supply the chassis lubrication points, protecting critical components, reducing wear, and extending service life during intensive folding cycles. Enjoy worry-free handling and maximum boom reliability throughout the season.

BOOM CONFIGURATIONS

2-part folding:
24/12 m, 27/14 m, 28/14 m, 30/15 m, 36/18 m

3-part folding:
27/21 m, 30/21 m, 33/21 m, 32/24 m, 36/24 m, 39/27 m, 40/27 m, 42/28 m, 45/30 m, 48/32 m





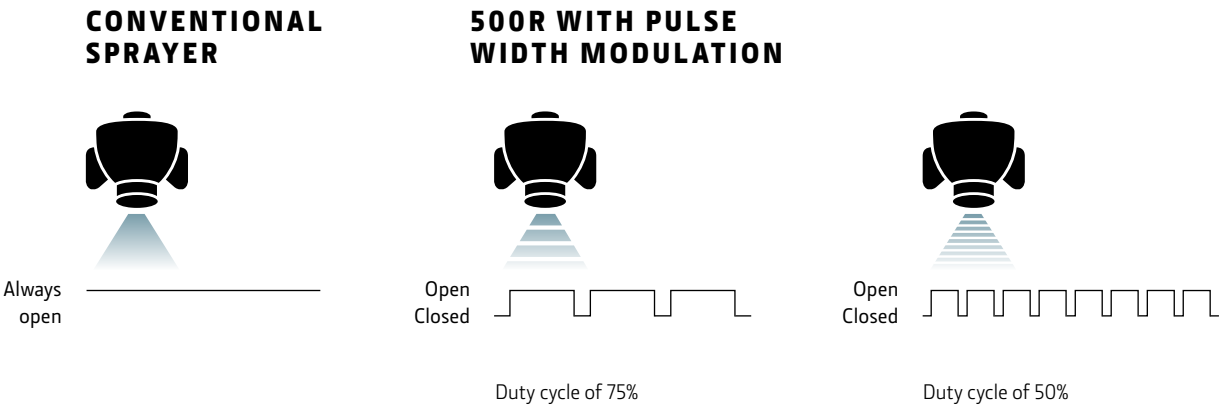
PERFECT DROPLETS. EVERY PASS.

Achieving the right droplet size has always been a challenge. With a chosen nozzle, it's your spraying speed that determines the pressure – and therefore the droplet size. Headlands, slopes, or varying field conditions can cause speed changes that influence coverage. The 500R counters this with intelligent pulsation control that keeps pressure consistent across the boom, helping each nozzle maintain the intended droplet size for reliable crop protection and maximum input efficiency.



CONSISTENT SPRAY QUALITY, EVERYWHERE.

At the heart of the 500R's performance is the alliance of PowrSpray™ and pulsation control. PowrSpray™ keeps pressure constant even when speed changes – whether entering or leaving headlands, working in uneven terrain, or turning. Pulsation makes each nozzle open and close at 15 Hz or 30 Hz, with the open time varying to deliver the exact target rate. This level of control keeps spray quality consistent across every part of your field.



WHY PULSATION MAKES THE DIFFERENCE

STABLE DROPLET SIZE AND RATE

PowrSpray™ maintains a constant pressure to keep droplet characteristics consistent, while pulsation ensures a stable application rate – even during acceleration or deceleration.

OPTIMAL COVERAGE

Each nozzle delivers the same output, ensuring homogeneous results over the entire working width.

IMPROVED AGRONOMIC PERFORMANCE

Optimized deposition supports healthy crop development and effective pest control.

LOWER INPUT COSTS

More precision in each droplet means less product wasted.

NOZZLE CONTROL

Individual Nozzle Control Pro delivers precise application by switching each nozzle independently and pulsing at 15 Hz. With stable droplet size and accurate rate control across a wide speed range, Individual Nozzle Control Pro offers the ideal balance of precision, durability, and ease of use for everyday spraying.



PRECISE, SIMPLE CONTROL

Included as standard, Individual Nozzle Control switches each nozzle independently, preventing overspray in corners, headlands, boundaries, and already-treated areas. Manual adjustments are intuitive via scroll wheels on the 500R armrest, while virtual sections and programmable profiles enhance flexibility. Expect 2–5% input savings compared to section-based control through fewer overlaps and more accurate application.



BUILT FOR LONG LIFE

With a straightforward one-plunger design, the 15 Hz system provides the ideal compromise between precision and durability. Running at a lower pulse frequency reduces mechanical wear on components, supporting long-term reliability in demanding spraying seasons. The robust 5-nozzle turret adds further durability, ensuring consistent performance year after year with minimal maintenance.



Five-nozzle turret engineered for durability and long-term reliability.

25 OR 50 CM
NOZZLE SPACING



15 HZ
PULSATION

Advanced rate control with Multi-Rate and turn compensation.

OPTIMISED 15 HZ PULSING

Individual Nozzle Control Pro pulses each nozzle at 15 Hz – opening and closing 15 times per second – to maintain the target rate over a broad working range. Because droplet size is defined by nozzle choice and pressure, PowrSpray™ keeps pressure consistent while pulsation adjusts the rate. With advanced features such as Multi-Rate application and turn compensation, the system delivers stable droplet characteristics and precise application across varying field conditions.

EXACTAPPLY™

ExactApply™ expands your spraying performance with switchable 15/30 Hz pulsation, in-cab nozzle A-B switching, multi-rate capability, and advanced curve compensation. Designed for operators who work across wider speed ranges, ExactApply™ keeps droplet size consistent while delivering maximum flexibility and productivity.



ADVANCED PRECISION FEATURES

Turn compensation, multi-rate capability, virtual sections, and integrated LED nozzle lighting combine to deliver unmatched control. ExactApply™ reduces overlap, improves accuracy in curves, and enables up to 15 virtual sections for tighter coverage. With smart on-board and remote diagnostics, the system keeps performance transparent and operation effortless – delivering 2–5% input savings and consistent results.

25 OR 50 CM
NOZZLE SPACING

SWITCHING AT YOUR FINGERTIPS

ExactApply™ goes beyond pulsation. A-B switching lets operators change nozzle sets directly from the cab – perfect when switching between crops, products, or application types during the same day. Thanks to this switching, you can even combine 15 Hz pulsation with nozzle switching, delivering a wider working speed range throughout your application. With up to six nozzles available on the turret, you always have the right option for the job.



ExactApply™ six-nozzle turret

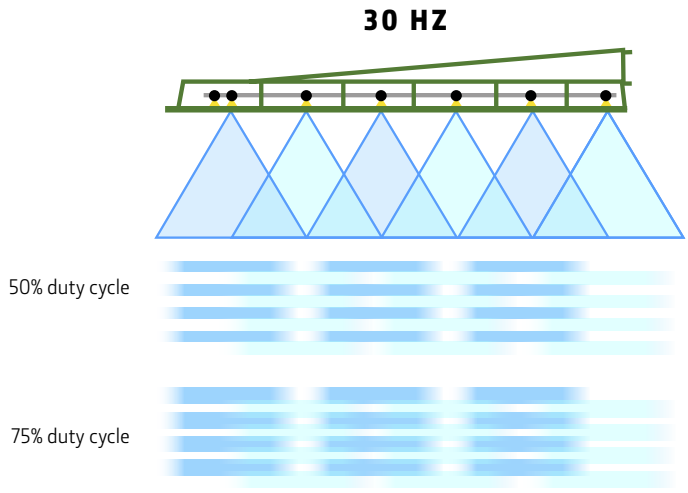


15/30 HZ
PULSATION

Two frequencies for smoother transitions.

TWO FREQUENCIES, IDEAL COVERAGE

ExactApply™ pulses each nozzle at either 15 Hz or 30 Hz. The 30 Hz mode uses a two-plunger design, enabling faster pulses and smoother application transitions. More pulses per second ensure smoother coverage – ideal when operating in variable terrain, frequent speed changes, or when pushing productivity at higher spraying speeds.





PRECISION ACROSS EVERY CURVE AND CONTOUR

No two field passes are the same. Curves, slopes, and changing crop conditions all challenge consistent spray quality. The 500R meets these challenges automatically. Pulse Width Modulation with Individual Nozzle Control Pro or ExactApply™ delivers precise curve compensation and enables application of up to 15 rates at once across the entire boom.

CONSISTENT RATES. PERFECT COVERAGE. EVERY TIME.

When your boom enters a curve, the inner nozzles slow down while the outer nozzles travel farther and faster. With Individual Nozzle Control Pro or ExactApply™, the 500R instantly adjusts the duty cycle of each nozzle to maintain the correct rate at a constant droplet size, ensuring uniform application across the entire boom – even on tight turns. For even greater flexibility, Multi-Rate application with Individual Nozzle Control Pro or ExactApply™ allows multiple rates across the boom, with up to 15 rates applied simultaneously. Individual Nozzle Control Pro enables up to 11 rates, while ExactApply™ increases this capability to 15. This allows the sprayer to follow prescription maps precisely – delivering accuracy where it matters most: directly on the crop.

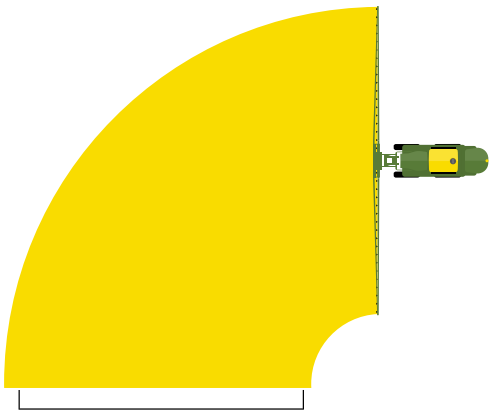
TURN RATE COMPENSATION BENEFITS

UNIFORM PROTECTION ON EVERY PASS
Corrects inner/outer duty cycle to reach a perfectly even application.

NO OVER- OR UNDER-DOSING
Prevents hot spots and weak spots in curved areas.

HIGH PRECISION AT ANY SPEED
Instant reaction ensures consistent results across the field – even in light curves.

TURN RATE COMPENSATION

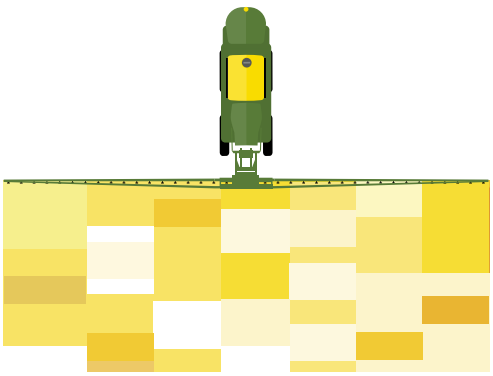


Homogeneous rate

Exact flow for each nozzle in every curve.



MULTI-RATE APPLICATION



Up to 11 rates with Individual Nozzle Control Pro and up to 15 rates with ExactApply™.

MULTI-RATE APPLICATION BENEFITS

UP TO 15 RATES AT ONCE
Match application intensity to crop needs in real time.

SUPPORTS VARIABLE-RATE STRATEGIES
Works hand in hand with variable-rate fertiliser, fungicide, and growth-regulator plans – delivering nitrogen and crop protection exactly where the plants need it, not as an average.

REDUCED INPUT COSTS
Up to 12% savings by eliminating over- and under-dosing with high-resolution application across the boom.



THE SHAPE OF PRECISION

SPRAY NOZZLES

Together with our nozzle partner Hypro, we have built an extensive range of nozzles that has you covered no matter what you're going to spray.

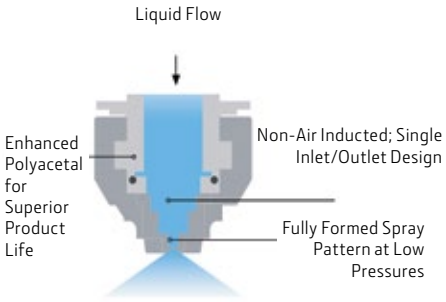
CHOOSE THE RIGHT NOZZLE

A key factor for efficient spraying is the right nozzle choice for the application rate, crop and product you're working with. Performance parameters like drift reduction, degree of coverage as well as size of the drops in relation to spraying angles play an important role.

HEAVIER DROPLETS, FOR LESS DRIFT

Significantly reducing drift without any sacrifices in coverage is the domain of air induction nozzles. Their larger, heavier drift-resistant droplets have an air pocket inside. On impact, the droplets burst and deposit the spray liquid on the target. Our ULD, LDA and GAT models are air induction nozzles.

STANDARD HYDRAULIC

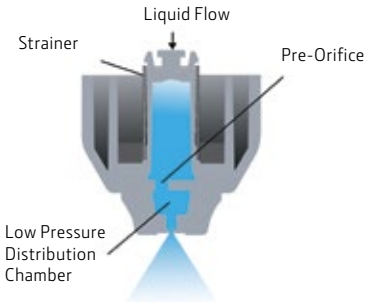


(Extended Range – ER)

MAIN ADVANTAGE:

– Low cost

PRE-ORIFICE

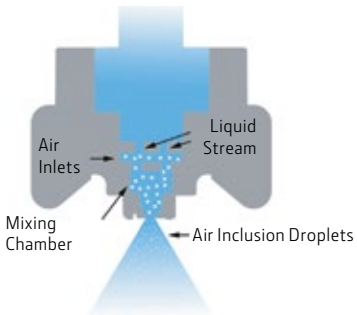


(Guardian™ – LDX)

MAIN ADVANTAGE:

– Reduced drift potential

AIR INDUCTION



(Ultra-low drift – ULD)

MAIN ADVANTAGE:

– Increased coverage and reduced drift

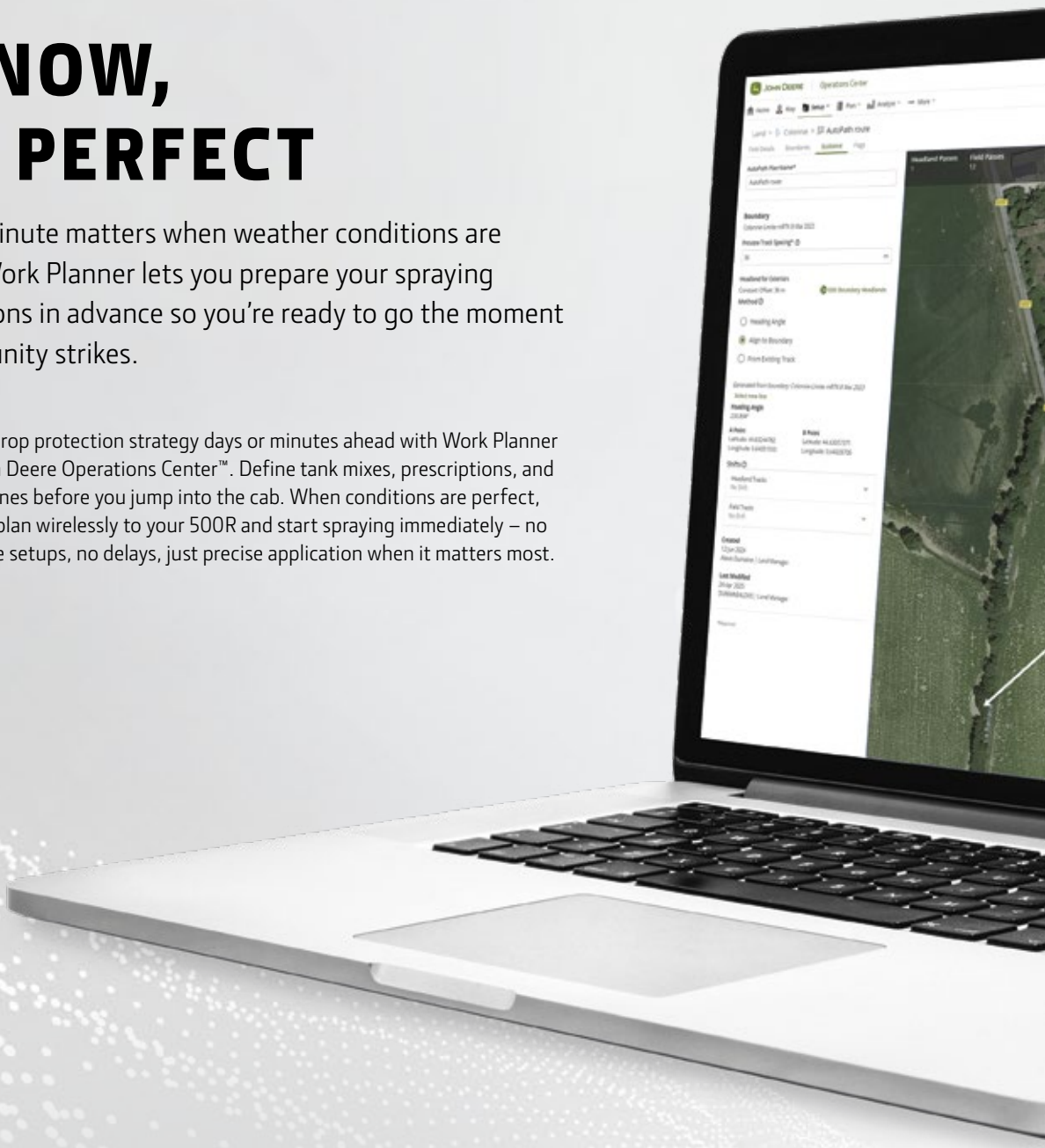
FOCUS NOZZLES

	NOZZLE NAME	CROP PROTECTION PRODUCT TYPE	SPACING	DROPLET SIZES	PULSE WIDTH MODULATION (PWM)	CERTIFIED 90% + DRIFT REDUCTION (STATUS 04/26)
	ER 110° Extended Range	Herbicides Growth Regulator Fungicide Insecticide	50 cm	Very fine – very coarse	Yes	–
	ERC Extended Range Ceramic	Herbicides Fungicide Insecticide	50 cm	Fine – coarse	Yes	–
	ULD Ultra Low Drift	Systemic Herbicides	50 cm	Medium – ultra coarse	No	UK, FR, DE, NL, IE (Sizes 04, 05)
	ULDC Ultra Low Drift Ceramic	Herbicides Fungicide	50 cm	Coarse – very coarse	No	UK, NL (sizes 03, 04, 05); FR (sizes 025, 04, 05); DE (sizes 025-06)
	LDA Low Drift Air	Contact Herbicides Growth Regulator Fungicide	50 cm	Medium – ultra coarse	No	–
	LDAC 120°/90° Low Drift Air Ceramic	Contact Herbicides Growth Regulator Fungicide	25 cm 50 cm	Fine – ultra coarse	No	FR, DE (90° sizes 015-04)
	3D90 3D Ninety	Weed Control Herbicides Fungicide Insecticide	25 cm 50 cm	Extra coarse – ultra coarse	Yes	UK, FR (sizes 03-08)
	3D100 3D Nozzle	Herbicides Fungicide Insecticide Desiccants	25 cm 50 cm	Fine – extra coarse	Yes	–
	GAT Guardian™ Air Twin	Herbicides Fungicides Insecticides Desiccants	50 cm	Fine – ultra coarse	No	–
	GATC Guardian™ Air Twin Ceramic	Herbicides Fungicides Insecticides	50 cm	Coarse – ultra coarse	No	FR (sizes 03-05)
	STC Straight Stream Ceramic	Liquid fertilizer	25 cm 50 cm	–	Yes	–

PLAN NOW, SPRAY PERFECT

Every minute matters when weather conditions are right. Work Planner lets you prepare your spraying operations in advance so you're ready to go the moment opportunity strikes.

Plan your crop protection strategy days or minutes ahead with Work Planner in the John Deere Operations Center™. Define tank mixes, prescriptions, and guidance lines before you jump into the cab. When conditions are perfect, send your plan wirelessly to your 500R and start spraying immediately – no last-minute setups, no delays, just precise application when it matters most.

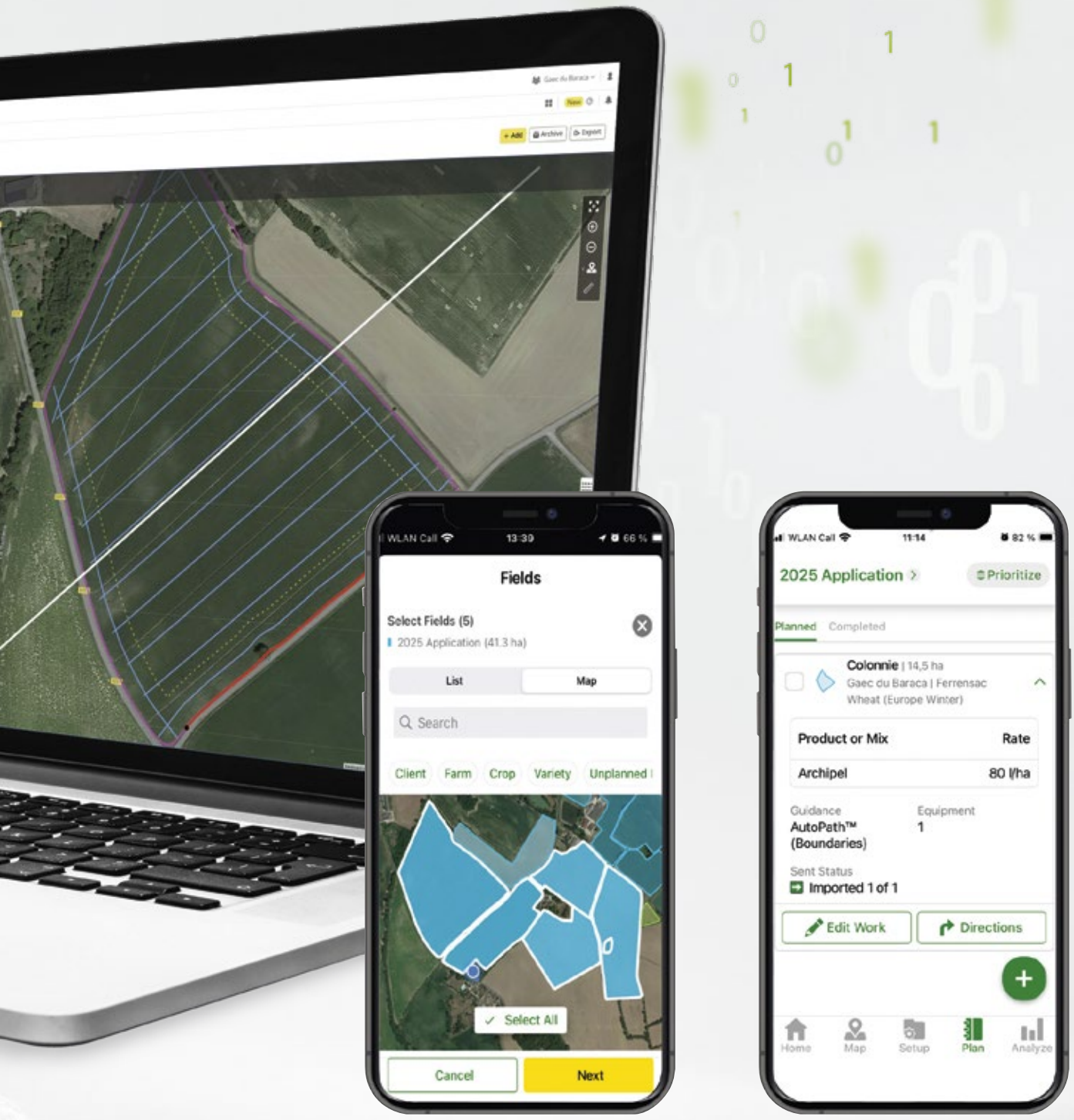


xarvio® Digital Farming Solutions powered by BASF

YARA

SEAMLESS PARTNER INTEGRATION

When your preferred partner provides prescription maps, they're automatically assigned to the right field. Simply include them in your Work Planner, and they'll be ready to go when you are ready.



GET JOHN DEERE OPERATIONS CENTER™ NOW, FOR FREE

ONE TOUCH PRECISION

Your 500R arrives field-ready with the G5Plus CommandCenter™ already configured for action. With AutoTrac™ and Section Control built in, and all sprayer functions just one click away, you can focus on what truly matters – perfect application with minimal effort.

G5PLUS COMMANDCENTER™

Think 35% larger, 75% faster. The 500R comes with the G5Plus CommandCenter™, featuring our largest screen ever, faster boot-up times, and high-definition 1080P. Enjoy a familiar satellite maps view* like on your phone, including the ability to pinch-zoom in and out with your fingers.

G5PLUS EXTENDED MONITOR

The optional G5Plus Extended Monitor doubles the already massive 12.8" screen of the G5Plus CommandCenter™ and allows you to seamlessly transfer data between displays to monitor more functions simultaneously and quickly make adjustments.

CORNER POST DISPLAY

Your essential data now comes in pin-sharp graphics on bright, easy-to-read screens. Information has never looked this beautiful.

STARFIRE™ RECEIVER

The 500R's integrated StarFire™ receiver comes standard with SF1 and is upgradeable to the SF-RTK high-precision correction signal featuring +/- 2.5 cm pass-to-pass accuracy with long term repeatability – no need for additional hardware or network connections.



*requires G5 Advanced License



NEXT-LEVEL AUTOMATION

Level up your spraying with SF-RTK signal and AutoPath™ (Boundaries)*. This technology creates ultra-precise guidance lines that work from inside-out or outside-in. You focus on crop protection while your 500R follows the perfect path – ready whenever conditions are right.

SPRAYER APP

Our reimagined app interface puts intuitive control at your fingertips. Tap any element for instant details on tanks, booms, or pumps. The customisable Virtual Terminal interface adapts to your workflow, displaying just what you need when you need it.



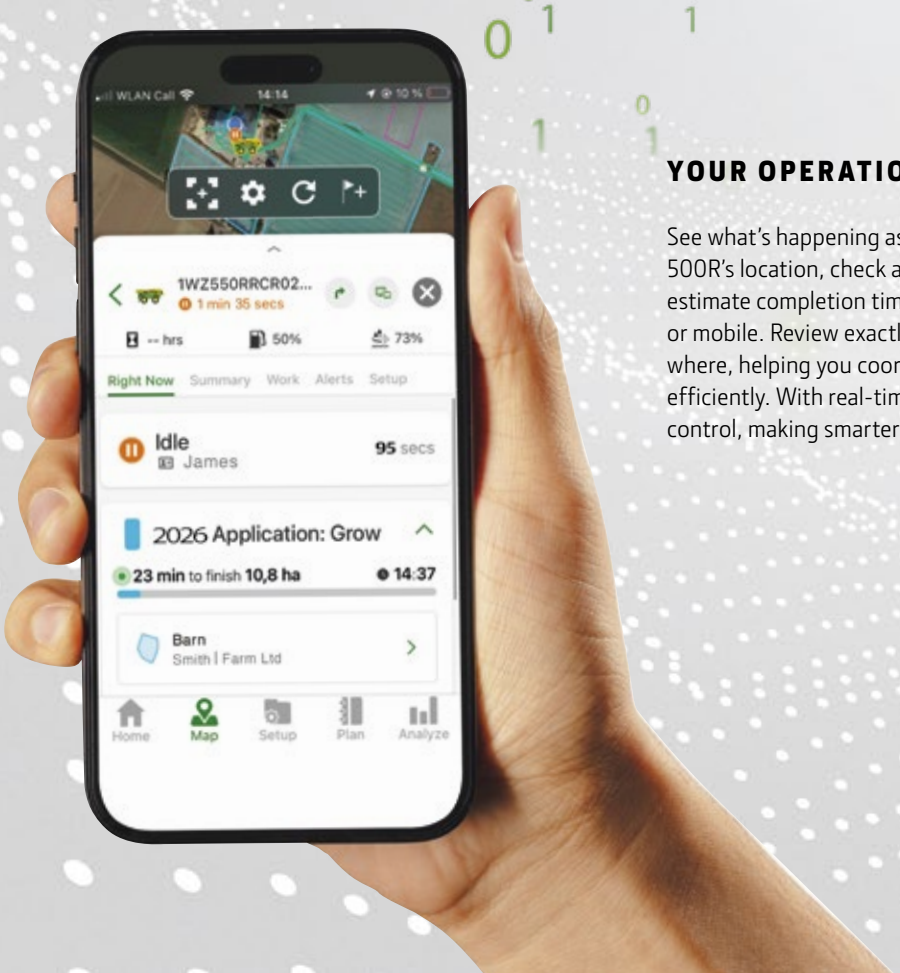
SMART TOOLS, SMOOTHER OPERATION

John Deere Operations Center™ gives you one central hub to monitor, analyze, and optimize your spraying operations in real time. Track your 500R, work quality, sync data seamlessly, staying in complete control of every application.



DATA THAT TRAVELS WITH YOU

Connect without effort. DataSync automatically transfers field and application data between your 500R and John Deere Operations Center™, keeping records current without manual uploads. Manage multiple machines or adjust plans on the go with real-time insights at your fingertips. No USBs, no delays, just smarter decisions, faster.



YOUR OPERATION AT A GLANCE

See what's happening as it happens. Track your 500R's location, check application progress, and estimate completion times from anywhere, desktop or mobile. Review exactly what's been applied and where, helping you coordinate your team more efficiently. With real-time visibility, you're always in control, making smarter decisions on the move.



TURN INSIGHTS INTO ACTION

Dig deeper into your spraying data with Field Analyzer. Get insights on application rates, coverage consistency, and potential skips or overlaps. This information lets you fine-tune machine settings and optimise input use for every pass. The result? Precise, effective application that maximises efficiency while maintaining accuracy – turning your data into better performance in the field.

THE GENTLE GIANT

The 500R is gentle on the soil and gentle on your crops. Low ground pressure minimises soil compaction so you can get into fields when other sprayers are still in the yard.

LOWER SOIL COMPACTION

The 500R can be equipped with a wide range of tyre options up to 650 mm in width. These offer high clearance and are able to handle the heavy load of a large spray tank without increasing the inflation pressure. This reduces ground pressure for better flotation and lower soil compaction.





EXCELLENT MANOEUVRABILITY

The 500R is just 2.55 m wide so you'll have no problem passing through gates and getting into narrow spaces. The drive system seamlessly switches between 2 and 4-wheel drive, with coordinated steering for reduced crop damage.



PERFECT BALANCE

With an optimized weight distribution – reaching a perfect 50/50 on the 550R with 36/24 m boom and approximately 52/48 front/rear on the 560R when fully loaded and unfolded – the 500R delivers exceptional balance thanks to its strategic front cab and rear engine layout. That means even ground pressure across all four wheels for lower soil compaction and efficient power transfer to the ground.





LESS CROP DAMAGE

The 500R has a ground clearance of 1,2 m and wheel shields are also available for tall crops. They provide a smooth surface that gently deflects the crop as the sprayer passes through the rows, avoiding potential damage from the wheels, hubs and tires.

SMART POWER

The 500R's drivetrain combines our robust PowerTech™ PSS 6.8L 6-cylinder engine with our responsive CommandDrive™ transmission. This powerfully efficient duo propels you at road speeds up to 40 or 50 km/h*, running at just 1,350 RPM – all while meeting Stage V emissions standards.



SMART SPEED, SMART SAVINGS

Move between fields with speed and efficiency at up to 40 or 50 km/h*. The 500R's Auto Mode optimizes engine performance on the road, automatically reducing engine speed to 1,350 RPM. You'll notice the difference in fuel consumption and enjoy a quieter ride.

COMMANDDRIVE™ TRANSMISSION

The CommandDrive™ variable speed hydrostatic transmission provides an infinite range of speeds. A single hydrostatic pump actuates four variable wheel motors which drive their respective wheels through a heavy-duty planetary final drive hub to provide full pulling power at the wheels. The independent wheel motors provide superior traction control, automatically adjusting power according to weight balance and wheel speed.

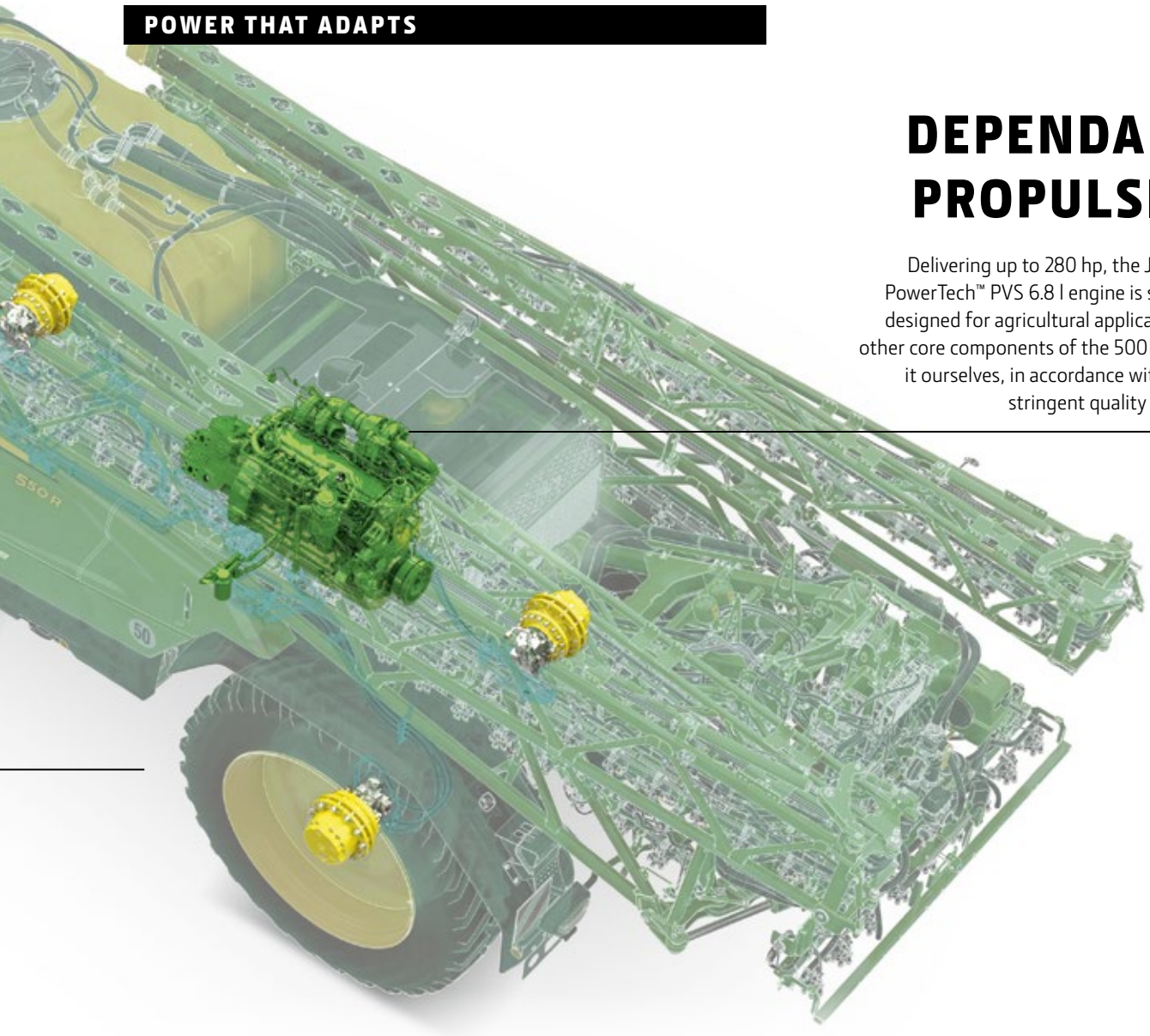
*Depending on the 500R country edition



POWER THAT ADAPTS

DEPENDABLE PROPULSION

Delivering up to 280 hp, the John Deere PowerTech™ PVS 6.8 l engine is specifically designed for agricultural applications. Like other core components of the 500R, we build it ourselves, in accordance with our own stringent quality standards.





STABILITY WITH FLEXIBILTY

The 500R combines in-wheel suspension and flexible track-width options to deliver unmatched stability and crop protection. With generous suspension travel, adjustable frames, and tread presets stored in the G5 display, you can adapt instantly to crop rows, field conditions, and soil-protection needs.



IN-WHEEL SUSPENSION

Each wheel features an independent in-wheel suspension system with a travel range of –10 cm downward and +5 cm upward. This generous movement keeps all four wheels in contact with the ground, smoothing out ruts, ridges, and uneven surfaces. The result is improved stability, reduced boom movement, and a consistently comfortable ride at higher spraying speeds.



FLEXIBLE TRACK WIDTHS

Choose between two adjustable frame widths* to match your crops: Narrow (180–250 cm) or Mid (200–270 cm). Each frame is available with manual adjustment or hydraulic adjustment directly from the cab. Wider ranges offer better stability and more crop-friendly wheel spacing, letting you tailor the 500R precisely to your operators, fields, and seasons.

SMART TREAD CONTROL

Save time when switching between crops or fields using tread presets stored in the G5Plus CommandCenter™. Up to three preferred track widths can be saved and recalled instantly. The system even allows different track widths between front and rear axles to reduce soil compaction during early-season applications. Smart tread control delivers fast, repeatable setup and gentler ground pressure when it matters most.



*Availability depends on country-specific homologation.

MINIMAL MAINTENANCE

CONNECTED PERFORMANCE

INTEGRATED UPTIME

The 500R is designed for maximum uptime and low maintenance. Easy access for regular maintenance items and advanced on-board diagnostics with remote monitoring tools allow you to constantly check your sprayer's health.



EASY MAINTENANCE

To give you more time in the field, serviceability has been thought through during the whole design process – from easy access to regular maintenance items like filters, to greaseless bearings on the boom that eliminate routine servicing, and AutoLube which removes all grease points on the center frame and chassis.

REMOTE DIAGNOSTICS

Using JDLink™ the 500R is connected to the cellular network allowing remote diagnostics. With your permission your dealer is able to monitor your machine as well as view the G5^{Plus} screen via Remote Display Access. This allows them to provide real-time advice on set-up and troubleshooting.

UPGRADEABLE DESIGN

Apart from regular over-the-air software upgrades offering new features, the 500R has a digital backbone with 32 bit architecture. This allows your machine to be upgraded with new technologies as they become available.

EXPERT ALERTS

Unique to John Deere, Expert Alerts use predictive diagnostics to identify potential issues before they prevent the sprayer from working. They notify the dealer of the issue and the required fix, allowing them to make the repair without any unnecessary machine downtime.

POWERGARD™

STATUS: PROTECTED



100%
REPAIR COST CONTROL

0%
REPAIR COST INFLATION

HIGHER
RESALE VALUE

UPTIME
IN THE FIELD

When you protect your equipment with a PowerGard™ Protection plan[1], your business has the steady machine uptime and nonstop peak performance it needs to thrive.

A PowerGard™ Protection plan[1] covers the components that put power to the ground. Take that coverage even further with a PowerGard™ Protection Plus plan to add engine auxiliaries, electrical system, hydraulic system, and operator's station to the coverage.

UP TO
5 YEARS / 5,000 HOURS

[1]At participating dealers only. Requires a maintenance plan.

SPECIFICATIONS

	540R	550R	560R
ENGINE			
Manufacturer	John Deere Power Systems		
Type	PowerTech™ PSS, Stage V Emission		
Engine power	285 hp – max. 300 hp / max. 224 kW		
Cylinders	6		
Displacement (l)	6.8		
Fuel tank capacity (l)	350		
Diesel Exhaust fuel tank capacity	21		
Field mode at (rpm)	1350		
SOLUTION SYSTEM			
Tank Capacity (nominal), (l)	4000	5000	6000
Tank material	Polyethylen		
Rinse tank capacity (l)	500		
PowrSpray™ spraying pumps 3"	base		
Centrifugal filling pump (l/min)	1200		
Centrifugal spraying pump (l/min)	1000		
Spray pressure min – max (bars)	1 to 8		
Inductor hopper capacity (l)	50		
BOOM			
Boom options	Steel 30/15 m 2 part folded Steel 36/24 m 3 part folded Steel 42/28 m 3 part folded		
Boom folding	Automated boom folding Sequencial boom folding		
Automatic boom height	BoomTrac™ Pro 2 – 5 sensors ≤ 36 m or 7 sensors >36 m		
Nozzle solutions	In base: Individual Nozzle Control Optional: Individual Nozzle Control Pro Pulse Width Modulation, Turn Compensation, MultiRate, Individual Nozzle Control, ExactApply™ with Pulse Width Modulation, Turn Compensation, MultiRate, Nozzle Switching, Individual Nozzle Control and Lightning – 6 nozzles turret		
DRIVETRAIN			
Type	CommandDrive™: Hydrostatic permanent 4WD – wheelslip control		
Hydrostatic pump (cc)	210 – Directly connected to the engine – Electronically managed		
Hydraulic tank capacity (l)	170		
Wheel motors (cc)	4*80 with planetary gear hubs – Independantly optimized according to weight balance and wheel speed		
Braking system	Primary service brake – hydraulic caliper disk brakes Secondary service brake – wet disk brake integrated in rear and front final drives Parking brake – internal wet disk brakes in rear and front final drives with automatic parking brake activation when engine switched off		
Brake disk covers	Optional		
Spray speed range (km/h)	0 to 30		
Transport speed (km/h)	0 to 40 or 0 to 50*		
Steering mode	4 wheels hydrostatic steering with 4 modes: 4 wheel coordinated – 4 wheel crab steer – 2 wheel (field) – 2 wheel with transport lock		
CHASSIS			
Crop clearance with standard tires (cm)	from 120 to 130**		
Machine width (m)	2.55 ***		
Machine height (m)	3.9		
Total weight empty (kg)	14,400	14,500	
Ladder	Hydraulic, automatic up / manual down		
Platform size (m²)	2.42		
TREAD ADJUSTMENT			
Hydraulic track adjust, cm	180 to 250 200 to 270		
TIRES			
Size available	VF 380/90 R 54 – 176D, VF 420/95 R 50 – 177D, VF 480/80 R 50 – 179D, VF 520/85 R 42 – 180D, VF 520/85 R 46 – 173A8/B, VF 520/85 R 46 – 173D, VF 650/65 R 42 – 174D		
SUSPENSION			
Type	Xtraflex in wheel independant suspension		

*country specific
** tyre specific
*** out of mirrors, tyres and fenders

	540R	550R	560R
PRECISION AG			
Receiver	StarFire™ integrated		
Display	In base: G5[Plus] CommandCenter™ Optional: G5[Plus] CommandCenter™ with G5[Plus] Extended Monitor		
Precision Ag solution	In base: AutoTrac™; Section Control; Documentation; Remote Dispay Access, Over-the-air updates, DataSync Optional Advanced license: AutoPath™, Google maps		
JDLink™	R Modem		

			SELECT	PREMIUM	ULTIMATE
COMFORT AND CONVENIENCE PACKAGE					
Seat	Material		Cloth		Leather
	Controls		Manual	Electronic	
	Lumbar		Mecanical	Pneumatic	
	Swivel	Left	–	16°	
		Right	16°		
	Pivoting CommandARM™		–	■	■
	Heated / Ventilated		–	–	■
	Active Fatigue Prevention (massage seat)		–	–	■
	Adjustable bolsters		–	–	■
	Suspension		–	ActiveSeat™ II (electric motor for quick reaction, up to 90% reduction of vertical motion)	
Infotainment			AAM/FM/WX/DAB Aux & BlueTooth™ Inputs Two speakers	16.5 cm touchscreen app radio, Digital radio (DAB), Three speakers with subwoofer, Apple CarPlay and Android Auto	
Business band ready			■	■	■
Four USB outlets and One 12.5 V power outlet			■	■	■
Dual tilt column			■	■	■
Footrests			–	■	■
Refrigerator – 25,5 L capacity			–	■	■
Leather wrapped steering wheel			–	–	■
Carpeted floor mat			–	–	■
Electronic door cinch			–	Optional	

		SELECT	PREMIUM	ULTIMATE
VISIBILITY PACKAGE				
Lights	Working Lights	LED		
	Working Lights Location	HALOGEN (12 V)	LED (2200 Lm)	LED+ (4000 Lm)
	Beacon	Cab roof & front Vehicle x6, Side vehicle x2 Left and x2 Right, Reversing x2		
	Loading station and service areas	–	■	■
Mirrors		Electric adjustable review mirrors and manual adjustable curve mirros, heated		
Sunhades	Front	■	■	■
	Rear	–	■	■
	Right	–	–	■
Wigers	Front	■	■	■
	Rear	–	–	■
	Right	–	–	■
Cameras	Reversing	■	■	■
	Spray pattern	–	–	■
	Front wheels	–	–	■

COMFORT AND CONVENIENCE

		SELECT CAB	PREMIUM	ULTIMATE
PACKAGES COMBINATION				
Visibility	SELECT	■	–	–
	PREMIUM	■	■	–
	ULTIMATE	–	■	■

WHY CHOOSE JOHN DEERE?

We've been in the sprayer business for almost 100 years and build all key components in-house: engines, transmissions, cabs and electronic control systems. John Deere also owns the StarFire™ guidance system which provides you with a reliable signal for accurate spraying and our data connectivity helps you analyse your applications for better decision-making.

Above all, it's the service provided by our network of factory trained specialists that gives you the long-term support and advice to get the most from your sprayer.



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