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THINGS TO KNOW ABOUT  
PATRIOT® SPRAYERS



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## THINGS TO KNOW ABOUT PATRIOT® SPRAYERS

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## VISIBILITY



### Cab Forward Design

- Short Nose/Fuel Tank Optimizes Forward Visibility
- No Suspension Package or Walkway to Limit Forward or Peripheral Vision
- Size and Shape of Mid-Ship Mounted Tank Minimizes Rearward Blind Spots



### Surveyor™ Cabs

- Large Amounts of Glass Surface Area
- A-Post Instrumentation Monitoring in the Normal Line-of-Sight



### Component Placement

- Seat is Centrally Located in Cab (Front to Back and Side to Side Adjustments)
- Control System Mounting Doesn't Affect Field Visibility
- Short Nose and Gun Sight Make it Easy to Stay on Track
- Front Ladder Folds Up without Impacting Visibility

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## THINGS TO KNOW ABOUT PATRIOT® SPRAYERS

### OPERATOR COMFORT



#### Optima™ Air-Ride Seat

- Air-Adjusted Height Control/Ride Firmness
- Side to Side and Fore/Aft Shock Isolation
- Right-hand & Left-hand Swivel
- Cut & Sewn Seat Cushions for Better Air Flow and Superior Comfort



#### Climate Control

- Automatic Temperature Control (Standard or Optional)
- Air Vents on Steering Console Surround Operator in Comfort Zone
- Centrally Located Seat/Large Roof Cap
- Retractable Sun Shades



#### Operating Creature Comforts

- Deluxe or Luxury Cab Trim Packages
- Easy to Use Tilt/Telescoping Steering
- Quiet Cab Due to Rear-Engine Configuration
- Control Console Moves with the Seat
- Critical Operating Parameters Visible in the Normal Line-of-Sight

## AIM COMMAND® SPRAY SYSTEM



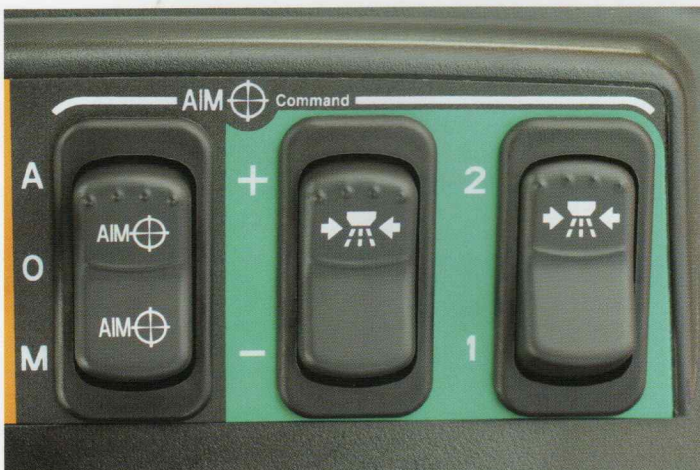
### Constant Rate & Constant Pressure

- Both Independent of Ground Speed
- Flow Control Through AIM Command Solenoid
- Pressure Control Through Product Pump Speed



### Instantaneous On/Off

- AIM Command Solenoid Controls Flow in Conjunction with Boom Valve
- No Nozzle Run-On
- Constant Pressure When Booms Shut Off or Turn On — No Bleed Down or Ramp Up



### Increased Productivity

- Increased Average Field Speed
- Better Coverage Through Constant Pressure
- Ability to Pre-set Two Different Pressures for Drift Reduction or Canopy Penetration Using the Same Tip

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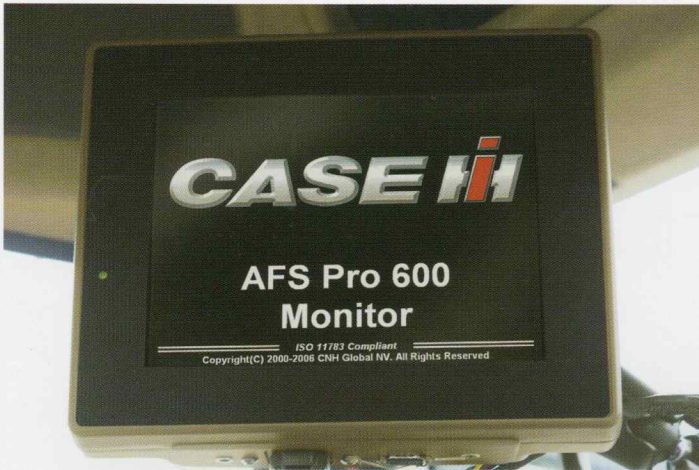
## THINGS TO KNOW ABOUT PATRIOT® SPRAYERS

### SPRAYER RATE CONTROLLER OPTIONS



#### Case IH Viper Pro Display

- Color, Touch Screen
- Single Product Application Enabled, Capable of 5 Products - Requires Unlock Key
- Variable Rate Capable, Requires Unlock Key
- Wireless Internet Access Capable
- Compatible with AccuBoom, AutoBoom™, AIM Command® Spray System, AutoFold Plus



#### Case IH AFS Pro 600 Display

- Color, Touch Screen
- Single Product Application
- Variable Rate Capable
- Compatible with AccuGuide™, AccuBoom, AutoBoom™, AIM Command® Spray System, AutoFold Plus



#### Case IH SCS 5000 Display

- Simple Display, Touch Key Pad
- Single Product Application
- No Mapping Capabilities
- Compatible with AutoBoom™, AIM Command® Spray System, AutoFold Plus

## SPRAY BOOMS



### Configurations / Features

- 60/90-ft., 60/100-ft. & 60/90/120-ft. Combination Booms
- Automated Folding/Unfolding — EZ-Fold Boom Control or AutoFold Plus
- Boom Auto-Centering Feature



### Rugged, Durable Design

- Field-Proven Truss-Style Design
- Strong Hinge Areas for Longevity
- Large Structural Steel Tubing
- Fewer Welds Reduce Potential for Fatigue Cracking
- Large Vertical & Horizontal Cross-Sections Resist Impact Loads



### Parallel-Link Mounted Center Section

- Large Range of Vertical Adjustment
- Tube Steel Linkage Arms for Rigidity/Boom Stability
- Two-Piece Design Allows Booms to Float

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## THINGS TO KNOW ABOUT PATRIOT® SPRAYERS

### BOOM SUSPENSION



#### Vertical Load Suspension

- Chassis Trailing-Link Suspension for Primary Dampening
- Hydraulic Accumulators on Center Section Height Cylinders
- Large Vertical Cross Section to Resist Vertical Impacts
- 120-ft. Boom Tilt Cylinder Accumulators



#### Horizontal Load Suspension

- Angled Pivot Allows Gravity to Help Limit Movement
- Large Horizontal Cross Section Resists Fore/Aft Impacts
- Combination of Mechanical and Hydraulic Systems to Maintain Boom Position
- Independent Left/Right Booms



#### Boom Tip Motion

- Center Pivot Boom/"Virtual" Pivot Point
- Simple Coil Spring Center Section Dampening
- Shock Absorbers on 120-ft. Boom
- Critical to Maintaining a Level Spray Boom Platform

## PRODUCT PLUMBING



### Wide Application Rate Ranges

- Standard, Low-Flow & High Volume Options
- Liquid Fertilizer Capable
- Efficient Plumbing Design from the Pump to the Tip
- Single Product Pump for All Plumbing Choices



### Boom Sections & Nozzle Spacing

- 5, 6 or 7 Boom Sections Depending on Boom Length
- Boom Section Valves Mounted Near Boom Section for Quick Nozzle Response
- 20 Inch Spacing for Broadcast Applications
- 20/30 Inch Spacing for Broadcast (20 Inch) or Band Applications (30 Inch)



### Spray Technology Options

- Conventional Spray Technology
- AIM Command® Spray System Option
- Wilger Combo-Rate® Nozzle Bodies
- Arag 5-Way Nozzle Bodies

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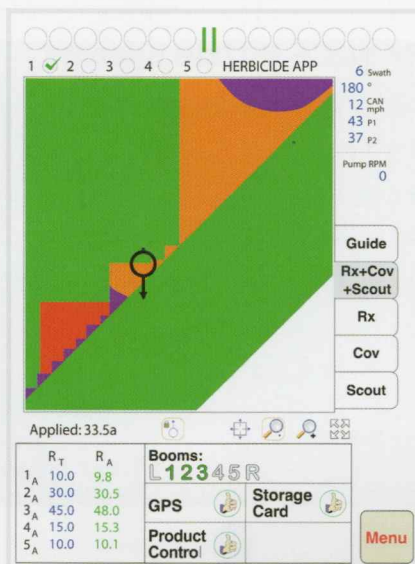
## THINGS TO KNOW ABOUT PATRIOT® SPRAYERS

### PRECISION AGRICULTURE



#### AFS AccuGuide™ Autoguidance

- AccuGuide Ready or Factory Complete
- WAAS, OmniStar or RTK
- Transferable Components
- Reduces Operator Stress & Fatigue
- Case IH AFS Pro 600 Display



#### AccuBoom Automatic Boom Section Control

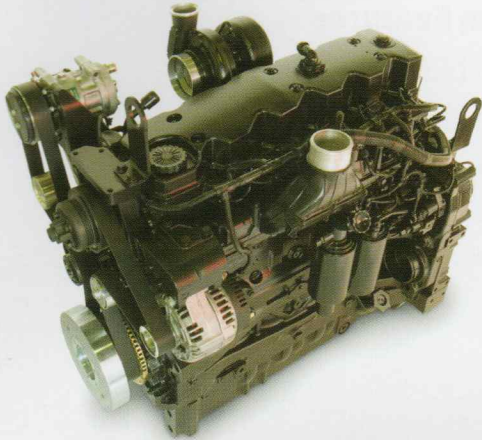
- Better Field Coverage
- Chemical Savings
- Minimizes Crop Damage from Overspray
- Requires Case IH AFS Pro 600 or Case IH Viper Pro Rate Controller and GPS Signal
- Optional Remote Control



#### AutoBoom™ Automatic Boom Height Control

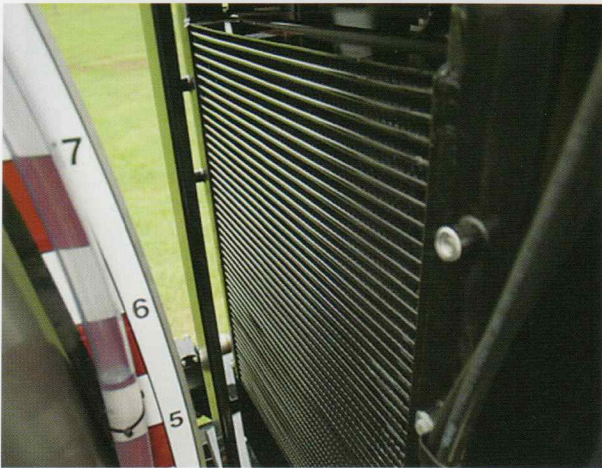
- Ultrasonic Sensors Monitor Boom Height
- Gauge Wheels Available for Challenging Terrain
- Maintains Optimum Spray Height for Better Coverage
- Minimizes Ground Strikes and Boom Damage
- Compatible with Case IH Rate Controllers

## POWERTRAIN



### Powerful Diesel Engines

- Electronically Controlled
- Tier III Emissions Compliant
- Excellent Fuel Economy
- Engine Size Matched to Performance Requirements



### Efficient Engine Cooling

- Large Surface Area Cores
- Narrow Core Thickness
- Wide Fin Spacing
- Design Minimizes Parasitic HP Loss & Engine Fan Noise



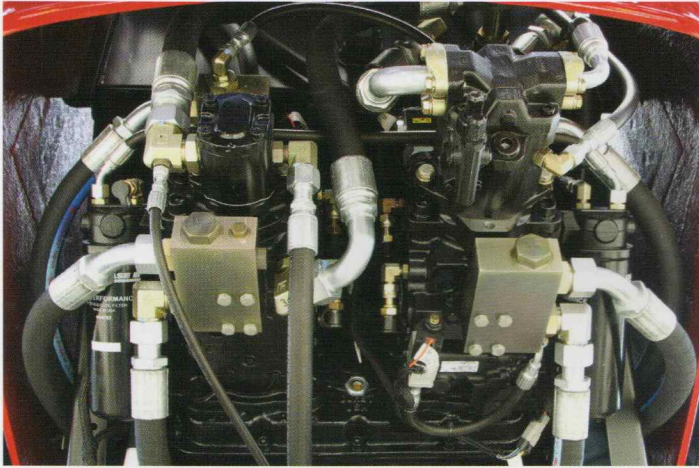
### Rugged Hydrostatic Drive

- Single-Speed Range Design
- Variable Displacement Pumps
- Infinitely Variable, Axial Piston Motors
- Planetary Hub

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## THINGS TO KNOW ABOUT PATRIOT® SPRAYERS

### HYDROSTATIC DRIVE



#### System Features

- Heavy Duty Components
- Parallel, Cross-Flow Circuit Design
- Electronic Control
- Three Separate Components – Pumps, Motors, Planetaries



#### Operator Control

- Hydro Handle Dictates Direction of Travel & Speed
- Rotary Dial Sets Top Speed
- Hydro-Dynamic Braking is Primary
- Service Brake Provides Additional Stopping Power



#### Maximum Performance

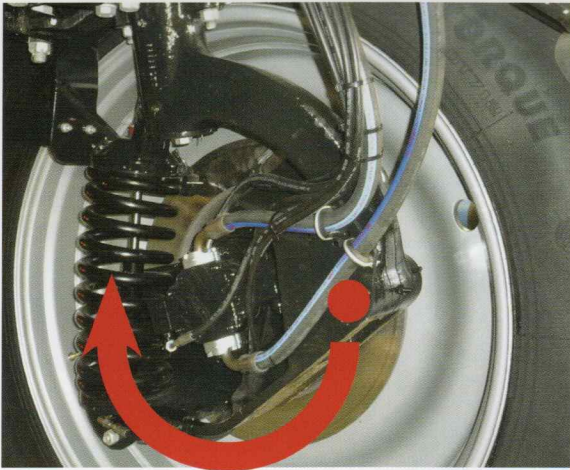
- Maximum Torque Coming Out of Neutral
- Traction Assist Aids in Challenging Conditions
- Infinitely Variable, Maximize Horsepower to the Ground
- Single Torque Curve vs. Many Curves with Torque Losses Between Speed Ranges

## CHASSIS SUSPENSION



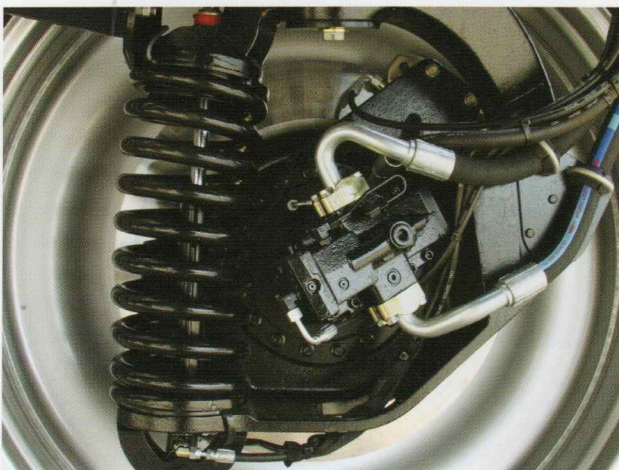
### High Speed Suspension Package

- Handles Vertical Shock Loads Typical of Low Speed Impacts
- Only Suspension System Capable of Handling Horizontal Loads Associated with Higher Travel Speed
- Large Deflection Design Allows for Rigid Frame and More Stable Spraying Platform



### Simple Operation and Maintenance

- Aircraft-Inspired Trailing-Link Design
- Coil Spring Over Shock Absorber
- Single Pivot Point with Easy Access Grease Points



### Active Suspension

- Hydraulic Cylinder Replaces Front Shock Absorbers
- Aids in Maintaining Front Wheel Traction
- Effective Hill Climbing Feature
- Unique to Case IH

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## THINGS TO KNOW ABOUT PATRIOT® SPRAYERS

### WEIGHT DISTRIBUTION



#### Earlier Field Access

- Optimize Available Window of Application
- Maximize Yield Potential
- Ability to Spray When Competitors Can't Access the Field



#### Less Rutting Potential and Reduced Soil Compaction

- Smoother Field, Especially in Minimum or No-Till Practices
- Better Ability for Water and Air to Percolate Through Soil
- Better Plant and Soil Health



#### Lower Rolling Resistance for Better Horsepower Utilization

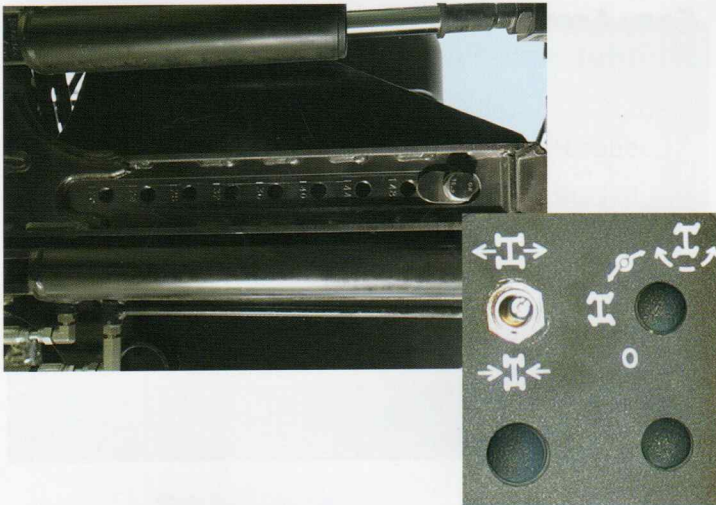
- More Available Horsepower to the Ground
- Reduced Hydrostatic Drive Pressure
- Better Fuel Economy

## ADAPTABILITY



### Spraying "After Hours"

- Standard Halogen Light Package
- Center H.I.D. Light Option
- Deluxe H.I.D. Field Light Group Option



### Hydraulically Adjustable Axles

- 120-157 Inch Track Width
- Single Switch Extends All Four Axles
- Mechanical Tab Stops
- Axle Spacing Dimensions on Slide Bars



### Tire Options

- Ultra Narrow Row Crop – 320 Size
- Row Crop – 380 Size
- Flotation – 520 or 650 Size

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## THINGS TO KNOW ABOUT PATRIOT® SPRAYERS

### ACCESSIBILITY & SERVICEABILITY



#### Easy Cab Entry/Exit

- Cab-Forward Design
- Front Mount Ladder
- Wide Cab Door Threshold



#### Easy Access to Routine Maintenance Features

- Front-Mounted Fuel Tank Accessed from Ladder Platform
- Full-Length Walkway
- Engine Compartment Opens
- Radiator Grille Sections Swing Out and can be Removed



#### Open Architecture Design

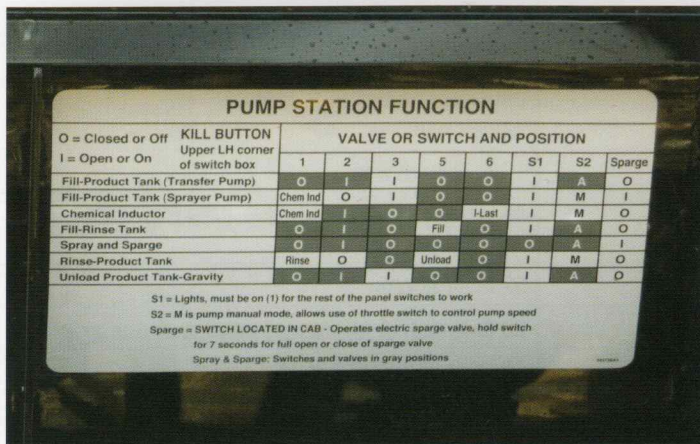
- Full-Length Steel Hydraulic Lines
- Flanged Product Plumbing Connections
- Uncluttered Appearance
- Routings and Design Allow Easy Component Access

## SERVICE CENTER



### One Stop Tendering Location

- Main Product Tank Fill
- Fresh Water Rinse and Optional Foam Marker Fill
- Optional Chemical Educator
- Suction and Pressure Controls



### Easy to Use

- Manual Valves for Maximum Uptime
- Color-Coded Decal for Valve Position (Gray to Spray)
- Easy to Understand Reference Chart



### Improved Sprayer Efficiency

- Large Fill Lines Reduce Tendering Time
- Optional Suction Quick Fill Kit
- Remote Reload Station

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## THINGS TO KNOW ABOUT PATRIOT® SPRAYERS

Model	Patriot 3230	Patriot 3330
Engine	6.7 L (409 cu. in.) Case IH NEF inline 6-cylinder, 220 rated hp (164 kW), 240 peak hp (179 kW), 752 ft.-lbs. (1020 N·m) peak torque, turbocharged, after-cooled, electronically controlled diesel	6.7 L (409 cu. in.) Case IH NEF inline 6-cylinder, 250 rated hp (186 kW), 270 peak hp (202 kW), 789 ft.-lbs. (1070 N·m) peak torque, turbocharged, after-cooled, electronically controlled diesel
Drive	Hydrostatic with full-time 4-wheel drive. Infinitely variable speed control returns wheel motor swash plates to maximum angle each time hydro lever is returned to neutral. Allows maximum torque for each start.	Hydrostatic with full-time 4-wheel drive. Infinitely variable speed control returns wheel motor swash plates to maximum angle each time the hydro lever is returned to neutral. Allows maximum torque for each start.
Wheel Track Adjustment	120-157 in. (305-399 cm) hydraulically adjusted from the cab with manual stops at 1 in. (2.54 cm) increments per wheel	120-157 in. (305-399 cm) hydraulically adjusted from the cab with manual stops at 1 in. (2.54 cm) increments per wheel
Travel Speed	30 mph (48 kph)	30 mph (48 kph)
Dry Weight	22,780 lbs. (10 333 kg)	90/100 ft. – 24,500 lbs. (11 113 kg) 120 ft. – 25,400 lbs. (11 521 kg)
Solution Tank Size	800 gal. (3028 L) stainless steel or poly construction	1,000 gal. (3785 L) stainless steel
Nozzle Spacing	20 in. (50 cm) off-center or 20-30 in. (50-76 cm) with 30 in. (76 cm) on-center	20 in. (50 cm) off-center or 20-30 in. (50-76 cm) with 30 in. (76 cm) on-center
Overall Length	27 ft. 9 in. (8.5 m)	27 ft. 9 in. (8.5 m)
Overall Height	12 ft. (3.7 m)	12 ft. (3.7 m)
Overall Width	Wheels retracted 11 ft. 6 in. (3.5 m); Wheels extended 14 ft. 7 in. (4.5 m)	Wheels retracted 11 ft. 6 in. (3.5 m); Wheels extended 14 ft. 7 in. (4.5 m)
Wheelbase	12 ft. 6 in. (3.8 m)	12 ft. 6 in. (3.8 m)
Tire Size	Available with 320/90 R46, 380/85 R46, 380/90 R46, 520/85 R38 and 650/65 R38	Available with 320/90 R46, 380/90 R46, 520/85 R38 and 650/65 R38
Ground Clearance	52 in. (132 cm)	52 in. (132 cm)
Turning Radius	23 ft. 3 in. (7.1 m) from center line of rear axle	23 ft. 3 in. (7.1 m) from center line of rear axle
Boom Length	60/90 ft. (18.3/27.4 m) or 60/100 ft. (18.3/30.5 m) self-centering	60/90 ft. (18.3/27.4 m), 60/100 ft. (18.3/30.5 m), or 60/90/120 ft. (18.3/27.4/36.5 m) self-centering
Boom Adjustment Height	19-84 in. (48-213 cm)	19-84 in. (48-213 cm)
Full Boom Breakaway	30 degrees	30 degrees
Wingtip Breakaway	90 ft. – 5 ft. 6 in. (1.7 m) / 100 ft. – 10 ft. 6 in. (3.2 m)	90 ft. – 5 ft. 6 in. (1.7 m) / 100 ft. – 10 ft. 6 in. (3.2 m) / 120 ft. – 9 ft. (2.7 m)
Suspension	4-wheel independent trailing-link with spring and shock standard; active suspension optional	4-wheel independent trailing-link with spring and shock standard; active suspension optional
Steering	Hydraulic power steering with master/slave rephasing cylinders	Hydraulic power steering with master/slave rephasing cylinders
Fuel Tank	120 gal. (454 L)	120 gal. (454 L)
Sprayer Control	Case IH SCS 5000, Case IH AFS Pro 600 or Case IH Viper Pro	Case IH SCS 5000, Case IH AFS Pro 600 or Case IH Viper Pro
Product Pump	Centrifugal-hydraulic motor driven by product control system	Centrifugal-hydraulic motor driven by product control system
Foam Marker	55 gal. (208 L) high-volume foam marker system. Air supply taken from turbocharger.	55 gal. (208 L) high-volume foam marker system. Air supply taken from turbocharger standard, or engine-driven air compressor optional.
Rinse Tank	112 gal. (424 L)	112 gal. (424 L)

## Patriot 4420

8.3 L (505 cu. in.) Cummins inline 6-cylinder, 290 rated hp (216 kW), 310 peak hp (231 kW), 1,020 ft.-lbs. (1383 N-m) peak torque, turbocharged, after-cooled, electronically controlled diesel

Hydrostatic with full-time 4-wheel drive. Infinitely variable speed control returns wheel motor swash plates to maximum angle each time hydro lever is returned to neutral. Allows maximum torque for each start.

120 - 157 in. (305-399 cm) hydraulically adjusted from the cab with manual stops at 1 in. (2.54 cm) increments per wheel

30 mph (48 kph)

90/100 ft. - 25,060 lbs. (11 367 kg)

120 ft. - 25,940 lbs. (11 766 kg)

1,200 gal. (4542 L) stainless steel

20 in. (50 cm) off-center or 20-30 in. (50-76 cm) with 30 in. (76 cm) on-center

27 ft. 9 in. (8.5 m)

12 ft. (3.7 m)

Wheels retracted 11 ft. 6 in. (3.5 m);

Wheels extended 14 ft. 7 in. (4.5 m)

12 ft. 6 in. (3.8 m)

Available with 320/90 R46, 380/90 R46 and 650/65 R38

53 in. (135 cm)

23 ft. 3 in. (7.1 m) from center line of rear axle

60/90 ft. (18.3/27.4 m), 60/100 ft. (18.3/30.5 m), or 60/90/120 ft. (18.3/27.4/36.5 m) self-centering

19-84 in. (48-213 cm)

30 degrees

90 ft. - 5 ft. 6 in. (1.7 m) / 100 ft. - 10 ft. 6 in. (3.2 m) / 120 ft. - 9 ft. (2.7 m)

4-wheel independent trailing-link with spring and shock standard; active suspension optional

Hydraulic power steering with master/slave rephasing cylinders

140 gal. (530 L)

Case IH SCS 5000, Case IH AFS Pro 600 or Case IH Viper Pro

Centrifugal-hydraulic motor driven by product control system

55 gal. (208 L) high-volume foam marker system. Air supply taken from turbocharger standard, or engine-driven air compressor optional.

70 gal. (265 L)

## Patriot 3230



## Patriot 3330



## Patriot 4420



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## THINGS TO KNOW ABOUT PATRIOT® SPRAYERS



### Patriot 3330

- 250 Rated Horsepower (186 kW)
- 1,000 gal. (3785 L) Stainless Steel Solution Tank
- 60/90 , 60/100 or 60/90/120 ft. (18.3/27.4, 18.3/30.5 or 18.3/27.4/36.5 m) booms

### Patriot 4420

- 290 Rated Horsepower (216 kW)
- 1,200 gal. (4542 L) Stainless Steel Solution Tank
- 60/90 , 60/100 or 60/90/120 ft. (18.3/27.4, 18.3/30.5 or 18.3/27.4/36.5 m) booms

### Patriot 3230

- 220 Rated Horsepower (164 kW)
- 800 gal. (3028 L) Stainless Steel or Poly Solution Tank
- 60/90 or 60/100 ft. (18.3/27.4 or 18.3/30.5 m) booms

**SAFETY NEVER HURTS!™** Always read the Operator's Manual before operating any equipment. Inspect equipment before using it, and be sure it is operating properly. Follow the product safety signs, and use any safety features provided.

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