JOHN DEERE

SEE & SPRAY™
Nozzle Pocket Guide

See & Spray™ Technologies

	SELECT	PREMIUM	ULTIMATE
Fallow Use	●	●	●
In-Season Use		●	●
Traditional Broadcast Spray Application	●	●	●
Targeted Spray Application	●	●	●
Single Tank	●	●	
Dual-Product Solution System/Split Tank			●
Night Spraying	●		

See & Spray™ Comparison Chart



Capability	Measurement	See & Spray Select	See & Spray Premium	See & Spray Ultimate	Notes
Maximum Target Application Speed					
	19 km/h (12 mph)	✓	✓	✓	• Must use John Deere approved rear-incline nozzles
	24 km/h (15 mph)	✓		✓	
	26 km/h (16 mph)	✓			
Minimum Crop Height					
NOTE: Ultimate and Premium options can see weeds approximately 0.635 cm (¼ in.) in diameter by 0.635 cm (¼ in.) in height. Select can see approximately 0.9 cm (0.35 in.) in diameter by 1.5 cm (0.6 in.) in height. Refer to nozzle guide for details on minimum boom height above crop canopy.	Corn ≥ V2		✓	✓	
	Soybean ≥ V1		✓	✓	
	Cotton ≥ Cotyledon		✓	✓	
	Fallow = N/A	✓	✓	✓	

Note: Specifications reflect data at time of publication (Jan. 2025). Check with your dealer for latest See & Spray specifications.

See & Spray™ Comparison Chart

Capability	Measurement	See & Spray Select	See & Spray Premium	See & Spray Ultimate	Notes
Maximum Crop Height					
NOTE: If the crop canopy covers the row, then cameras cannot see weeds. The system can see weeds that are approximately 0.635 cm (¼ in.) in diameter by 0.635 cm (¼ in.) in height.	Corn ≤ 40 cm (16 in.)		✓	✓	
	Soy ≤ 40 cm (16 in.)		✓	✓	
	Cotton ≤ 40 cm (16 in.)		✓	✓	
	Fallow	✓	✓	✓	• If stubble is present (depending on height), Combine header height adjustments should be considered
Row Spacing					
Row Spacing – 76-cm (30-in.) Minimum Approved Crops	With-Row Travel		✓	✓	
Row Spacing – 38-cm (15-in.) Soybean ONLY	With-Row Travel		✓	✓	• 60-degree spray angle minimum
	Cross-Row Travel (30-degree maximum angle)		✓	✓	• Cross-row 19-km/h (12-mph) maximum • 23-cm (9-in.) crop height • Wide fan nozzle tips only

Note: Specifications reflect data at time of publication (Jan. 2025). Check with your dealer for latest See & Spray specifications.

John Deere Nozzles

Compatible with See & Spray™ Select, Premium and Ultimate

Reverse Incline Nozzles		Contact Herbicides	Systemic Herbicides	Dicamba & 2,4-D	Cross Row
	**Targeted Spray Low-Drift** TSL60 & TSL80		✓	✓	
	**Extended Range** ER80	✓	✓		
	**3D** 3D100	✓	✓		✓
	**Low-Drift Max** LDM120-R4		✓	✓	✓
	**Ultra Low-Drift** ULD120 & ULD120-R4		✓	✓	✓

See & Spray Select can also utilize straight tips for operating speeds of up to 19 km/h (12 mph).

Size Tips According to System Pressure

- See & Spray is a rate-based system but currently not compatible with PWM.
- **Minimum Pressure** should be set to 2.1 bar (30 psi). **Spray Off Pressure** should be set to 2.8 bar (40 psi).
- Targeted pressure based on application rate and ground speed should be between 2.1 and 3.5 bar (30 and 50 psi) for optimal nozzle performance.
- Reference the nozzle tip calculation found later in this document for proper nozzle tip selection.

Optimal Boom Height

- Optimal boom height range for See & Spray Select is 66 cm-92 cm (26 in.-36 in.)
- For See & Spray Premium and See & Spray Ultimate, optimal boom height range is 51 cm (20 in.) above canopy with a minimum boom height of 66 cm (26 in.)

See & Spray™ – Nozzle Guide

ExactApply™ Turret Set-up for See & Spray Select and See & Spray Premium (A+B)

See & Spray allows you to run in two different ExactApply modes:

- B only
  - See & Spray only out of the B port with non-PWM functionality
- A+B
  - See & Spray out of the B port with non-PWM functionality and broadcast out of A with or without PWM functionality.
- Follow the steps to determine nozzle tip size for the A port. *(Note: Boom pressure is dictated by your See & Spray pressure.)*
- If running in single nozzle selection for your See & Spray Select application, follow these steps to size your tips accordingly.
  1) Determine your B tip size using the single nozzle selection formula where W=bandwidth (this will be your B tip on the nozzle body).
  2) Determine what your B tip size would be if running in overlapping nozzle selection W=nozzle spacing.
  3) Utilize the B tip size you calculated using the overlapping nozzle selection process and use that value in the below formulas to determine your A tip size.

A+B Non-PWM →

$$\frac{A}{B} \text{ x Nozzle B tip size = Nozzle A tip size}$$

A = Broadcast Rate

B = See & Spray Rate

A+B PWM →

$$\frac{\text{Nozzle A tip size (non-PWM)}}{\text{Desired Flow Rate \%}} = \text{Nozzle A tip size PWM}$$

Desired flow rate for optimum turn compensation is 65-70% for PWM spraying.

See & Spray™ – Nozzle Sizing Examples

Boom Width	Spacing	Pressure	Rate (A Nozzle)	Rate (B Nozzle)	Speed
36 m (120 ft)	51 cm (20 in.)	2.76 bar (40 psi)	47 l/ha (5 gpa)	94 l/ha (10 gpa)	19 km/h (12 mph)

Tip Size for B Nozzle
(See & Spray Nozzle)

$$\frac{\text{GPA x MPH x W}}{5{,}940} = \text{Flow Rate}$$

$$\frac{\text{10 gpa x 12 mph x 20-in. spacing}}{5{,}940} = \text{0.4 Flow Rate}$$

Size 04 Nozzle
(for 0.4-gpa flow rate)

Tip Size for A Nozzle (A+B Mode)
(Non-PWM)

$$\frac{A}{B} \text{ x Nozzle B tip size = Nozzle A tip size}$$

A = Broadcast Rate

B = See & Spray Rate

$$\frac{\text{5 gpa}}{\text{10 gpa}} \underset{\text{(B Nozzle tip size)}}{\text{x 04}} \underset{\text{(A Nozzle tip size)}}{= 02}$$

Size 02 Nozzle on A
(without PWM)

Tip Size for A Nozzle (A+B Mode)
(With PWM)

$$\frac{\text{Nozzle A tip size (non-PWM)}}{\text{Desired Flow Rate \%}} = \text{Nozzle A tip size PWM}$$

$$\frac{\text{02 Nozzle size}}{\text{0.65 Flow Rate}} = 3.07$$

Size 03 Nozzle on A
(with PWM)

See & Spray™ Premium and Ultimate – Nozzle Guide

John Deere
Targeted Spray
Low-Drift
TSL60

John Deere
Targeted Spray
Low-Drift
TSL80

John Deere
Extended Range
ER80

John Deere
3D
3D100

John Deere
Ultra Low-Drift
ULD120

John Deere
Low-Drift Max
LDM120

▲ John Deere Nozzles

NARROW FAN ANGLE

LESS NOZZLES ON

LESS OVERLAP ⟷ **MORE OVERLAP**

CHEMICAL SAVINGS PRIORITIZED ⟵

WIDE FAN ANGLE

MORE NOZZLES ON

▼ Other Compatible Nozzles

Agrotop
SpotFan
SF40

TeeJet Visiflo®
Flat Spray
TP65

TeeJet Air
Induction
Flat Spray
AI80

TeeJet
DriftGuard
DG80

TeeJet
Air Induction
XR Flat Spray
AIXR110

Note: Nozzles included in the above chart are the only nozzles currently tested and recommended by John Deere for targeted application with See & Spray Premium and See & Spray Ultimate. John Deere makes no guarantees of performance or product efficacy if spraying with other nozzles. VERSION: 25-01.

See & Spray™ Premium and Ultimate – John Deere Nozzles

	Application				Nozzle Tip Needed	Incline Adaptor Needed	Display Input	Minimum Boom Height
	Contact Herbicides	Systemic Herbicides	Dicamba & 2,4-D	Cross Row				
John Deere Targeted Spray Low-Drift TSL60		✓	✓		PSTSL6003R4, PSTSL60035R4, PSTSL6004R4, PSTSL6005R4, PSTSL6006R4, PSTSL6008R4	Yes: Included in nozzle kit part number ending in "R4"	PSTSL6005R4, PSTSL6006R4 Future software release: PSTSL6003R4, PSTSL60035R4, PSTSL6004R4, PSTSL6008R4	66 cm (26 in.)
John Deere Targeted Spray Low-Drift TSL80		✓	✓		PSTSL8003R4, PSTSL80035R4, PSTSL8004R4, PSTSL8005R4, PSTSL8006R4, PSTSL8008R4	Yes: Included in nozzle kit part number ending in "R4"	PSTSL8005R4, PSTSL8006R4 Future software release: PSTSL8003R4, PSTSL80035R4, PSTSL8004R4, PSTSL8008R4	66 cm (26 in.)
John Deere Extended Range ER80	✓	✓			PSER8002, PSER8003, PSER8004, PSER8005, PSER8006	Yes: Use "R4" 40° incline cap for regular tips, ordered separately	PSER8002R4, PSER8003R4, PSER8004R4, PSER8005R4, PSER8006R4	66 cm (26 in.)
John Deere 3D 3D100	✓	✓		✓	PS3DQ0002, PS3DQ00025, PS3DQ0003, PS3DQ00035, PS3DQ0004, PS3DQ0005, PS3DQ0006, PS3DQ0008	No: Built-in 38°	PS3DQ0002, PS3DQ00025, PS3DQ0003, PS3DQ00035, PS3DQ0004, PS3DQ0005, PS3DQ0006, PS3DQ0008	66 cm (26 in.)

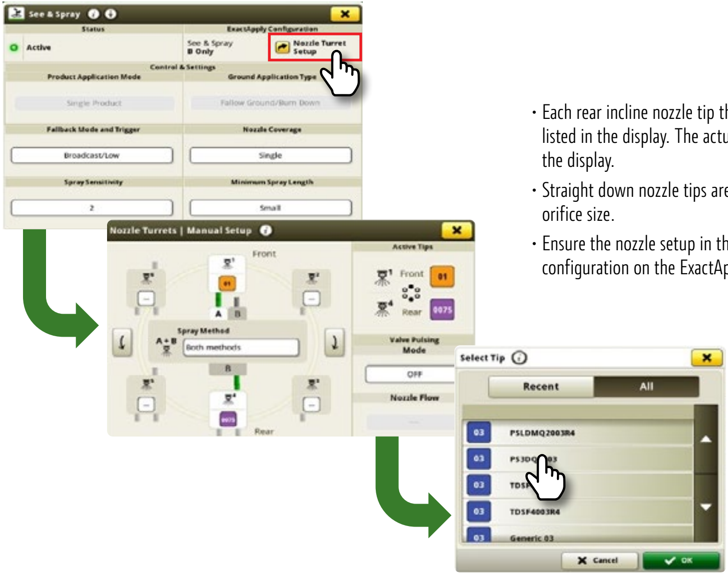
See & Spray™ Premium and Ultimate – John Deere Nozzles (continued)

	Application				Nozzle Tip Needed	Incline Adaptor Needed	Display Input	Minimum Boom Height
	Contact Herbicides	Systemic Herbicides	Dicamba & 2,4-D	Cross Row				
John Deere Low-Drift Max LDM120-R4		✓	✓	✓	PSLDMQ2003R4, PSLDMQ2004R4, PSLDMQ2005R4, PSLDMQ2006R4, PSLDMQ2008R4	Yes: Included in nozzle kit part number ending in "R4"	PSLDMQ2003R4, PSLDMQ2004R4, PSLDMQ2005R4, PSLDMQ2006R4, PSLDMQ2008R4	66 cm (26 in.)
John Deere Ultra Low-Drift ULD120 & ULD120-R4		✓	✓	✓	PSULD2002, PSULD20025, PSULD2003 or PSULD2003R4, PSULD2004 or PSULD2004R4, PSULD2005 or PSULD2005R4, PSULD2006 or PSULD2006R4, PSULD2008 or PSULD2008R4	Yes: Included in nozzle kit part number ending in "R4". Use "R4" 40° incline cap for regular tips, ordered separately	PSULD2002R4, PSULD20025R4, PSULD2003R4, PSULD2004R4, PSULD2005R4, PSULD2006R4, PSULD2008R4	66 cm (26 in.)

See & Spray™ Premium and Ultimate – Other Compatible Nozzles

	Application				Nozzle Tip Needed	Incline Adaptor Needed	Display Input	Minimum Boom Height
	Contact Herbicides	Systemic Herbicides	Dicamba & 2,4-D	Cross Row				
TeeJet Visiflo® Flat Spray TP65	✓	✓			Sizes 02, 03, 04, 05, 06 & 08 *(Source through TeeJet supplier)*	Yes: Use "R4" 40° incline cap for regular tips, ordered separately	TP6502R4, TP6503R4, TP6504R4, TP6505R4, TP6506R4, TP6508R4	38-cm (15-in.) Nozzle Spacing: 66 cm (26 in.) 51-cm (20-in.) Nozzle Spacing: 76 cm (30 in.)
TeeJet Air Induction Flat Spray AI80		✓	✓		Sizes 02, 03, 04, 05 & 06 *(Source through TeeJet supplier)*	Yes: Use "L4" 40° incline cap for long tips, ordered separately	AI8002L4, AI8003L4, AI8004L4, AI8005L4, AI8006L4	66 cm (26 in.)
TeeJet DriftGuard DG80	✓	✓			Sizes 03, 04 & 05 *(Source through TeeJet supplier)*	Yes: Use "R4" 40° incline cap for regular tips, ordered separately	DG8003R4, DG8004R4, DG8005R4	66 cm (26 in.)
TeeJet Air Induction XR Flat Spray AIXR110		✓	✓	✓	Sizes 02, 025, 03, 04, 05, 06 & 08 *(Source through TeeJet supplier)*	Yes: Use "R4" 40° incline cap for regular tips, ordered separately	AIXR11002R4, AIXR110025R4, AIXR11003R4, AIXR11004R4, AIXR11005R4, AIXR11006R4, AIXR11008R4	66 cm (26 in.)
Agrotop SpotFan SF40	*Fallow Application Only*				Sizes 02, 03 & 04 *(Source through Greenleaf supplier)*	Yes: Use "R4" 40° incline cap for regular tips, ordered separately	SF4002R4, SF4003R4, SF4004R4	38-cm (15-in.) Nozzle Spacing: 76 cm (30 in.) 51-cm (20-in.) Nozzle Spacing: 84 cm (33 in.)

See & Spray™ Select



- Each rear incline nozzle tip that is compatible with See & Spray Select is listed in the display. The actual nozzle tip part number must be selected in the display.
- Straight down nozzle tips are represented by "Generic XX" for each nozzle tip orifice size.
- Ensure the nozzle setup in the display matches the physical nozzle configuration on the ExactApply™ nozzle bodies.

See & Spray™ Select

Only Use See & Spray Approved Nozzles

- **Single nozzle selection:** Even spray nozzles are required
- **Overlapping nozzle selection:** Tapered flat-fan nozzles are required
- Speed thresholds:
  - 0-20 km/h (0-12 mph) use straight down nozzle tips
    - When selecting straight down nozzle tips, use the generic nozzle tip sizes located within the nozzle selection library in the display.
  - 0-25 km/h (0-16 mph) use rear incline tips
    (Note: This will allow the system to spray 20-25 km/h (12-16 mph).
    - List of approved rear incline nozzle tips are located within this document.
    - When selecting a rear incline tip, ensure the correct tip is selected in the nozzle tip library within the display.
    - 3D nozzles have a built-in rear incline. The R4 or L4 adaptors are needed to convert all other compatible nozzle tips to rear incline.

Nozzle Tip Fan Angle

- Even spray nozzle tips recommended fan angles listed below:
  - 40° / 65° / 80°
- Tapered flat fan nozzle tip recommended spray angles listed below:
  - 40°-60° / 60°-100°

Note: The higher the boom height, the smaller the fan angle is recommended due to a fixed number of nozzles coming on to ensure proper rate is being applied

See & Spray™ Select

Single Nozzle Application

Single nozzle mode on John Deere See & Spray Select enables the minimum number of nozzles required in response to a live plant (green color) detected. It is recommended to use single nozzle mode when boom height, boom movement, wind speed, and ground speed are at lower values.

Note: May produce the greatest amount of chemical savings

Recommended Nozzle Tips

- Only even flat fan nozzle tips are recommended for single nozzle application.
- Approved rear incline nozzle tips for speeds of up to 26 km/h (16 mph) (reference nozzle chart on page 22-24).

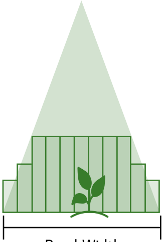
$$\frac{\text{GPA x MPH x W}}{5{,}940} = \text{Flow Rate}$$

or

$$\frac{\text{L/ha x km/h x W}}{60{,}000} = \text{LPM}$$

- GPA = carrier volume rate (gallons per acre)
- MPH = travel speed (miles per hour)
- W = spray width (band width in inches)

- L/ha = carrier volume rate (liters per hectare)
- km/h = travel speed (kilometers per hour)
- W = spray width (band width in centimeters)



Band Width

See & Spray™ Select

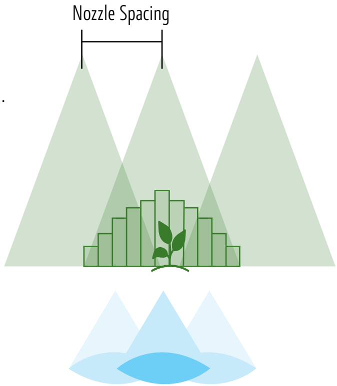
Overlapping Nozzle Application

Overlapping nozzle selection on John Deere See & Spray Select enables a minimum of three nozzles in relation to a detected live plant's (green color) position. It is recommended to use overlapping selection when boom height, boom movement, wind speed, and ground speed are at the upper limits of the system.

Note: May decrease the total amount of chemical savings

Recommended Nozzle Tips

- Tapered flat fan nozzle tips are recommended for overlapping nozzle selection.
- Approved rear incline nozzle tips for speeds of up to 26 km/h (16 mph) (reference nozzle chart on page 22-24).



$$\frac{\text{GPA x MPH x W}}{5{,}940} = \text{Flow Rate}$$

or

$$\frac{\text{L/ha x km/h x W}}{60{,}000} = \text{LPM}$$

- GPA = carrier volume rate (gallons per acre)
- MPH = travel speed (miles per hour)
- W = nozzle spacing (inches)

- L/ha = carrier volume rate (liters per hectare)
- km/h = travel speed (kilometers per hour)
- W = nozzle spacing (centimeters)

Note: Machine max speed while spraying is based on type of nozzle tip selected. Straight down nozzle machine max speed is 19 km/h (12 mph), rearward facing nozzle tip machine max speed is 26 km/h (16 mph). This recommendation is to provide guidance on nozzle tip selection. Please follow all label guidelines and local regulations when selecting the correct nozzle tip.

Calculating Theoretical Bandwidth for Single Nozzle Selection (Straight Nozzle Tip)

- The charts below show the theoretical band width given the spray fan angle and boom height shown below.
- W = band width (in). This value is for calculating flow using the following equation:

$$\frac{\text{GPA x MPH x W}}{5{,}940} = \text{Flow Rate}$$

or

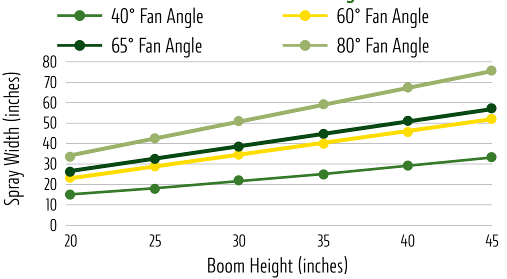
$$\frac{\text{L/ha x km/h x W}}{60{,}000} = \text{LPM}$$

NOTE:

- Large changes in boom movement will alter application rates and product performance.
- Pressure will impact band width making it wider or narrower based on increase or decrease in pressure.
- In single nozzle application, the adjacent nozzle may trigger on a live plant (green color) depending on the location of the weed in relation to the nozzles. To ensure proper coverage, boom height, nozzle spacing, and fan angle will affect % overlap if two nozzles trigger on the same live plant (green color).
- Refer to page 19 for straight nozzle tip charts.

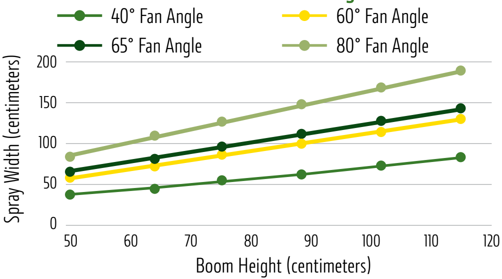
See & Spray™ Select

Theoretical Bandwidth – Straight Down



Inches				
Boom Height (15-in. spacing)	40° Fan Angle	60° Fan Angle	65° Fan Angle	80° Fan Angle
20	15	23	25	33
25	18	29	32	42
30	22	35	38	50
35	25	40	45	59
40	29	46	51	68
45	33	52	57	75

Theoretical Bandwidth – Straight Down



Centimeters				
Boom Height (38-cm spacing)	40° Fan Angle	60° Fan Angle	65° Fan Angle	80° Fan Angle
51	34	58	64	84
64	46	74	81	107
76	55	89	97	127
89	65	102	114	150
102	74	117	130	173
114	83	132	145	191

Note: Machine max speed while spraying is based on type of nozzle tip selected. Straight down nozzle machine max speed is 19 km/h (12 mph), rearward facing nozzle tip machine max speed is 26 km/h (16 mph). This recommendation is to provide guidance on nozzle tip selection. Please follow all label guidelines and local regulations when selecting the correct nozzle tip.

Calculating Theoretical Bandwidth for Single Nozzle Selection (Rearward Incline Nozzle Tip)

The charts below show the theoretical band width given the spray fan angle and boom height shown below.

W = band width (in). This value is for calculating flow using the following equation:

$$\frac{\text{GPA x MPH x W}}{5{,}940} = \text{Flow Rate}$$

or

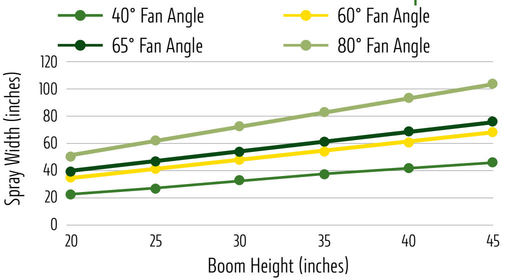
$$\frac{\text{L/ha x km/h x W}}{60{,}000} = \text{LPM}$$

NOTE:

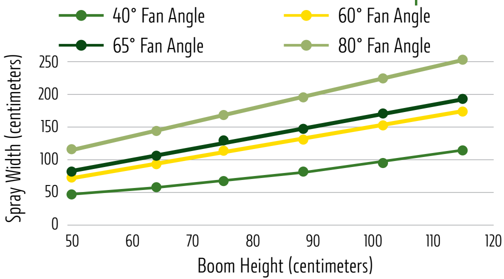
- Large changes in boom movement will alter application rates and product performance.
- Pressure will impact band width making it wider or narrower based on increase or decrease in pressure.
- In single nozzle application, the adjacent nozzle may trigger on a live plant (green color) depending on the location of the weed in relation to the nozzles. To ensure proper coverage, boom height, nozzle spacing, and fan angle will affect % overlap if two nozzles trigger on the same live plant (green color).
- Refer to page 21 for rear incline nozzle tip charts. At this time, the only recommended rear incline tip that can be used in single nozzle application is the Agrotop SF40.

See & Spray™ Select

Theoretical Bandwidth – Rear Incline – Tapered



Theoretical Bandwidth – Rear Incline – Tapered



Inches				
Boom Height (15-in. spacing)	40° Fan Angle	60° Fan Angle	65° Fan Angle	80° Fan Angle
20	19	30	33	44
25	24	38	42	55
30	29	45	50	66
35	33	53	58	77
40	38	60	67	88
45	43	68	75	99

Centimeters				
Boom Height (38-cm spacing)	40° Fan Angle	60° Fan Angle	65° Fan Angle	80° Fan Angle
51	48	77	84	111
64	60	96	106	139
76	72	115	127	167
89	84	134	148	195
102	97	153	169	223
114	109	172	190	250

Note: Machine max speed while spraying is based on type of nozzle tip selected. Straight down nozzle machine max speed is 19 km/h (12 mph), rearward facing nozzle tip machine max speed is 26 km/h (16 mph). This recommendation is to provide guidance on nozzle tip selection. Please follow all label guidelines and local regulations when selecting the correct nozzle tip.

See & Spray™ Select – John Deere Nozzles

		Application			Nozzle Tip Needed	Incline Adaptor Needed	Display Input	Minimum Boom Height
		Contact Herbicides	Systemic Herbicides	Nozzle Selection				
	John Deere Targeted Spray Low-Drift TSL60		✓	Overlapping	PSTSL6003R4, PSTSL60035R4, PSTSL6004R4, PSTSL6005R4, PSTSL6006R4, PSTSL6008R4	Yes: Included in nozzle kit part number ending in "R4"	PSTSL6005R4, PSTSL6006R4 Future software release: PSTSL6003R4, PSTSL60035R4, PSTSL6004R4, PSTSL6008R4	66 cm (26 in.)
	John Deere Targeted Spray Low-Drift TSL80		✓	Overlapping	PSTSL8003R4, PSTSL80035R4, PSTSL8004R4, PSTSL8005R4, PSTSL8006R4, PSTSL8008R4	Yes: Included in nozzle kit part number ending in "R4"	PSTSL8005R4, PSTSL8006R4 Future software release: PSTSL8003R4, PSTSL80035R4, PSTSL8004R4, PSTSL8008R4	66 cm (26 in.)
	John Deere Extended Range ER80	✓	✓	Overlapping	PSER8002, PSER8003, PSER8004, PSER8005, PSER8006	Yes: Use "R4" 40° incline cap for regular tips, ordered separately	PSER8002R4, PSER8003R4, PSER8004R4, PSER8005R4, PSER8006R4	66 cm (26 in.)
	John Deere 3D 3D100	✓	✓	Overlapping	PS3DQ0002, PS3DQ00025, PS3DQ0003, PS3DQ00035, PS3DQ0004, PS3DQ0005, PS3DQ0006, PS3DQ0008	No: Built-in 38°	PS3DQ0002, PS3DQ00025, PS3DQ0003, PS3DQ00035, PS3DQ0004, PS3DQ0005, PS3DQ0006, PS3DQ0008	66 cm (26 in.)

See & Spray™ Select – John Deere Nozzles (continued)

		Application			Nozzle Tip Needed	Incline Adaptor Needed	Display Input	Minimum Boom Height
		Contact Herbicides	Systemic Herbicides	Nozzle Selection				
	**John Deere Low-Drift Max** LDM120-R4		✓	Overlapping	PSLDMQ2003R4, PSLDMQ2004R4, PSLDMQ2005R4, PSLDMQ2006R4, PSLDMQ2008R4	Yes: Included in nozzle kit part number ending in "R4"	PSLDMQ2003R4, PSLDMQ2004R4, PSLDMQ2005R4, PSLDMQ2006R4, PSLDMQ2008R4	66 cm (26 in.)
	**John Deere Ultra Low-Drift** ULD120 & ULD120-R4		✓	Overlapping	PSULD2002, PSULD20025, PSULD2003 or PSULD2003R4, PSULD2004 or PSULD2004R4, PSULD2005 or PSULD2005R4, PSULD2006 or PSULD2006R4, PSULD2008 or PSULD2008R4	Yes: Included in nozzle kit part number ending in "R4". Use "R4" 40° incline cap for regular tips, ordered separately	PSULD2002R4, PSULD20025R4, PSULD2003R4, PSULD2004R4, PSULD2005R4, PSULD2006R4, PSULD2008R4	66 cm (26 in.)

See & Spray™ Select – Other Compatible Nozzles

	Nozzle	Application			Nozzle Tip Needed	Incline Adaptor Needed	Display Input	Minimum Boom Height
		Contact Herbicides	Systemic Herbicides	Nozzle Selection				
	**Agrotop SpotFan** SF40	*Fallow Application Only*		Single/ Overlapping	Sizes 02, 03 & 04 *(Source through Greenleaf supplier)*	Yes: Use "R4" 40° incline cap for regular tips, ordered separately	SF4002R4, SF4003R4, SF4004R4	38-cm (15-in.) Nozzle Spacing: 76 cm (30 in.) 51-cm (20-in.) Nozzle Spacing: 84 cm (33 in.)
	**TeeJet Visiflo® Flat Spray** TP65	✓	✓	Overlapping	Sizes 02, 03, 04, 05, 06 & 08 *(Source through TeeJet supplier)*	Yes: Use "R4" 40° incline cap for regular tips, ordered separately	TP6502R4, TP6503R4, TP6504R4, TP6505R4, TP6506R4, TP6508R4	38-cm (15-in.) Nozzle Spacing: 66 cm (26 in.) 51-cm (20-in.) Nozzle Spacing: 76 cm (30 in.)
	**TeeJet Air Induction Flat Spray** AI80		✓	Overlapping	Sizes 02, 03, 04, 05 & 06 *(Source through TeeJet supplier)*	Yes: Use "L4" 40° incline cap for long tips, ordered separately	AI8002L4, AI8003L4, AI8004L4, AI8005L4, AI8006L4	66 cm (26 in.)
	**TeeJet DriftGuard** DG80	✓	✓	Overlapping	Sizes 03, 04 & 05 *(Source through TeeJet supplier)*	Yes: Use "R4" 40° incline cap for regular tips, ordered separately	DG8003R4, DG8004R4, DG8005R4	66 cm (26 in.)
	**TeeJet Air Induction XR Flat Spray** AIXR110		✓	*Overlapping*	Sizes 02, 025, 03, 04, 05, 06 & 08 *(Source through TeeJet supplier)*	Yes: Use "R4" 40° incline cap for regular tips, ordered separately	AIXR11002R4, AIXR110025R4, AIXR11003R4, AIXR11004R4, AIXR11005R4, AIXR11006R4, AIXR11008R4	66 cm (26 in.)

Note: Machine max speed while spraying is based on type of nozzle tip selected. Straight down nozzle machine max speed is 19 km/h (12 mph), rearward facing nozzle tip machine max speed is 26 km/h (16 mph). This recommendation is to provide guidance on nozzle tip selection. Please follow all label guidelines and local regulations when selecting the correct nozzle tip.

Rear Incline Nozzles

R4 and L4 adaptor kits

Gasket Seal

Incline Cap

O-ring

Nozzle Tip
(not shown)

Incline Cap

Gasket Seal

Incline Cap

Gasket Seal

Nozzle Tip
(not shown)

Incline Cap

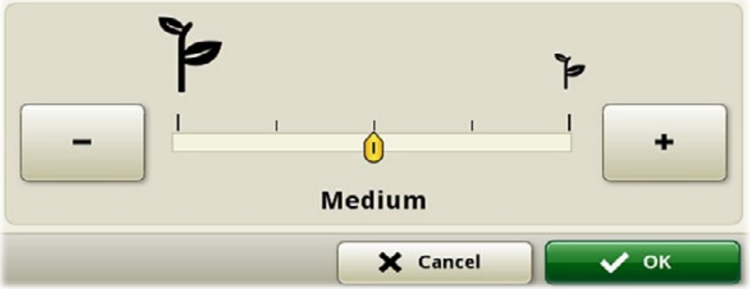
Sensitivity

Premium and Ultimate

Lowest Setting
Product savings is prioritized. Some targets will be ignored.

Medium Setting
Balance of product coverage and product savings. Some targets may be ignored.

Highest Setting
Product coverage is prioritized. Closest equivalent to broadcast.



All Crops

Premium and Ultimate

Nozzle	Use smallest spray fan angle allowed for the specific application. See nozzle guide.
Rate	10 GPA or greater carrier rate recommend. Follow label.
Boom Height	51 cm (20 in.) above canopy.
Buffers	Small / Small. Increase if wind speed increases.
Sensitivity	See page 26.
Optimization Notes	• Nozzle fan angle is most impactful. Narrow fan saves more product. • Lowering boom height saves more product, but reference nozzle guide for minimum height. • Don't change buffers to only maximize savings. Buffers should match wind speed. • Avoid decreasing sensitivity if max weed control is desired.

Fallow

Premium and Ultimate

Nozzle	≥ 40° spray fan angle. See nozzle guide.
Rate	≥ 10 GPA or greater. Follow label.
Boom Height	66-84 cm (26-33 in.) off of ground (nozzle dependent). See nozzle guide.
Buffers	Small / Small. Increase if wind speed increases.
Sensitivity	See page 26.
Optimization Notes	• Nozzle fan angle is most impactful. Narrow fan saves more product. • Lowering boom height saves more product, but reference nozzle guide for minimum height. • Don't change buffers to only maximize savings. Buffers should match wind speed. • Avoid decreasing sensitivity if max weed control is desired.
Max Travel Speed	Premium: ≤ 19 km/h (12 mph) Ultimate: ≤ 24 km/h (15 mph)

Corn	Premium and Ultimate	
Nozzle	≥ 60° spray fan angle. See nozzle guide.	
Rate	10 GPA or greater. Follow label.	
Boom Height	51 cm (20 in.) above crop height.	
Buffers	Small / Small. Increase if wind speed increases.	
Sensitivity	See page 26.	
Capabilities and Limitations	Maximum Speed	≤ 19 km/h (12 mph) (Premium) ≤ 24 km/h (15 mph) (Ultimate)
	Minimum Crop Height	≥ V2
	Maximum Crop Height	≤ 41 cm (16 in.)
	Row Spacing	≥ 76 cm (30 in.)

Soybean

Premium and Ultimate With-Row Travel

Nozzle	≥ 60° spray fan angle. See nozzle guide.	
Rate	10 GPA or greater. Follow label.	
Boom Height	51 cm (20 in.) above crop height.	
Buffers	Small / Small. Increase if wind speed increases.	
Sensitivity	See page 26.	
Capabilities and Limitations	Maximum Speed	≤ 19 km/h (12 mph) (Premium) ≤ 24 km/h (15 mph) (Ultimate)
	Minimum Crop Height	≥ V1
	Maximum Crop Height	≤ 41 cm (16 in.)
	Row Spacing	≥ 38 cm (15 in.)

Premium and Ultimate Cross-Row Travel

Nozzle	≥100˚ spray fan angle. See nozzle guide.	
Rate	10 GPA or greater. Follow label.	
Boom Height	51 cm (20 in.) above crop height.	
Buffers	Small / Small. Increase if wind speed increases.	
Sensitivity	See page 26.	
Capabilities and Limitations	Maximum Speed	≤ 19 km/h (12 mph)
	Minimum Crop Height	≥ V1
	Maximum Crop Height	≤ 23 cm (9 in.)
	Row Spacing	≥ 38 cm (15 in.)
	Spray Travel Angle	≤ 30°

Cotton

Premium and Ultimate

Nozzle	≥60˚ spray fan angle. See nozzle guide.	
Rate	10 GPA or greater. Follow label.	
Boom Height	51 cm (20 in.) above crop height.	
Buffers	Small / Small. Increase if wind speed increases.	
Sensitivity	See page 26.	
Capabilities and Limitations	Maximum Speed	≤ 19 km/h (12 mph) (Premium) ≤ 24 km/h (15 mph) (Ultimate)
	Minimum Crop Height	≥ Cotyledon
	Maximum Crop Height	≤ 41 cm (16 in.)
	Row Spacing	≥ 76 cm (30 in.)

See & Spray™ – Nozzle Sizing Worksheet

Boom Width	Spacing	Pressure	Rate (A Nozzle)	Rate (B Nozzle)	Speed

Tip Size for B Nozzle
(See & Spray Nozzle)

$$\frac{\text{gpa} \times \text{mph} \times \text{W}}{5{,}940} = \text{B Nozzle flow rate}$$

Tip Size for A Nozzle
(Non-PWM in A+B Mode)

$$\frac{\text{Broadcast rate}}{\text{See \& Spray rate}} \times \text{B Nozzle tip size} = \text{A Nozzle tip size}$$

NOTE: Refer to pages 8-9 for more details on nozzle sizing.

Notes

Notes

JOHN DEERE

Litho in U.S. (25-01)