SPRAY NOZZLE SELECTION GUIDE

What are you spraying?	When are you spraying?	Are you using a PWM system?**	Is your chemical Contact or Systemic?	Primary Concern: Drift	Primary Concern: Coverage
Liquid Fertilizer Plant Nutrients	Pre-Emerge	Yes		Hi-Flow	Hi-Flow
	Post-Emerge	Yes		ESI Six Stream	ESI Six Stream
Herbicides Weed Control	Pre-Emerge	No		GuardianAIR	GuardianAIR Twin
		Yes		3D† or Lo-Drift††	3D† or Lo-Drift††
	Post-Emerge	No	Systemic	Ultra Lo-Drift	GuardianAIR
			Contact	GuardianAIR	GuardianAIR Twin
		Yes		3D† or Lo-Drift††	3D† or Lo-Drift††
Dicamba***/2,4-D				Ultra Lo-Drift Max	Ultra Lo-Drift
Plant Growth Regulators	Post-Emerge	No		GuardianAIR	GuardianAIR Twin
		Yes		3D† or Lo-Drift††	3D† or Lo-Drift††
Insectide/ Fungicide	Post-Emerge	No	Systemic	GuardianAIR	GuardianAIR Twin
			Contact	GuardianAIR Twin	3D†
		Yes		3D† or Lo-Drift††	3D† or Lo-Drift††
Desiccants	Pre-Harvest	No	Systemic	Ultra Lo-Drift	GuardianAIR
			Contact	GuardianAIR Twin	3D†
		Yes		3D† or Lo-Drift††	3D† or Lo-Drift††

Spray quality will vary with pressure. For details, see nozzle-specific spray quality charts. Always comply with the product label recommendations or latest manufacturer advice on application on spray quality.
† When using the 3D and PWM at less than 30 Hz you must install the nozzles facing the same direction.
†† Pentair Hypro Lo-Drift (not pictured below) is a stand-alone nozzle different from Hypro Ultra Lo-Drift or Ultra Lo-Drift Max. This versatile nozzle works with any sprayer setup.
**** When using a PWM pick a pressure that provides the right droplet spetrum for contact/systemic or drift control/coverage.**
***** Use as indicated on approved label.**



Hi-Flow



ESI Six Stream



Ultra Lo-Drift



Ultra-Lo Drift Max



3D



GuardianAIR



GuardianAIR Twin

PENTAIR HYPRO

SPRAY IT CALCULATOR
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Hypro Spray It Spray Nozzle Selection App

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SPRAY NOZZLE	USES	PRESSURE RANGE	PART NUMBER	DROPLET SIZE PSI 30	40	60	80
Hi-Flow		20-80	HF140-08	UC	UC	XC	XC
			HF140-10	UC	UC	XC	XC
			HF140-15	UC	UC	XC	XC
			HF140-20	UC	UC	XC	XC
			HF140-30	UC	UC	XC	XC
			HF140-40	UC	UC	XC	XC
			HF140-50	UC	UC	XC	XC
			HF140-60	UC	UC	XC	XC
ESI		20-60	FC-ESI-110015	S	S	S	S
			FC-ESI-11002	S	S	S	S
			FC-ESI-11003	S	S	S	S
			FC-ESI-11004	S	S	S	S
			FC-ESI-11005	S	S	S	S
			FC-ESI-11006	S	S	S	S
			FC-ESI-11008	S	S	S	S
			FC-ESI-11010	S	S	S	S
			FC-ESI-11015	S	S	S	S
			FC-ESI-11020	S	S	S	S
Ultra Lo-Drift		20-115	FC-ULD120-015	XC	VC	C	C
			FC-ULD120-02	XC	C	C	M
			FC-ULD120-025	XC	C	C	M
			FC-ULD120-03	XC	C	C	M
			FC-ULD120-04	UC	UC	XC	VC
			FC-ULD120-05	UC	XC	XC	VC
			FC-ULD120-06	UC	XC	VC	C
			FC-ULD120-08	XC	VC	C	C
3D		12-90	FC-3D100-015	F	F	F	F
			FC-3D100-02	F	F	F	F
			FC-3D100-025	M	M	F	F
			FC-3D100-03	M	M	F	F
			FC-3D100-035	M	M	M	F
			FC-3D100-04	M	M	M	M
			FC-3D100-05	C	M	M	M
			FC-3D100-06	C	M	M	M
			FC-3D100-08	C	C	M	M
GuardianAir		20-115	FC-GA110-015	XC	C	M	M
			FC-GA110-02	VC	M	M	M
			FC-GA110-025	VC	C	M	M
			FC-GA110-03	XC	VC	C	M
			FC-GA110-035	VC	C	M	M
			FC-GA110-04	VC	C	M	M
			FC-GA110-05	XC	C	C	M
GuardianAir Twin		30-115	GAT110-02	C	M	M	M
			GAT110-025	UC	VC	M	M
			GAT110-03	VC	C	M	M
			GAT110-035	XC	C	M	M
			GAT110-04	VC	C	M	M
			GAT110-05	VC	C	M	M
			GAT110-06	XC	C	C	M
			GAT110-08	VC	C	C	M
Ultra Lo-Drift Max		30-100	FC- ULDM130-02	UC	UC	UC	XC
			FC- ULDM130-025	UC	UC	UC	UC
			FC- ULDM130-03	UC	UC	UC	XC
			FC-ULDM130-04	UC	UC	UC	XC
			FC-ULDM130-05	UC	UC	UC	UC
			FC-ULDM130-06	UC	UC	UC	UC
			FC- ULDM130-08	UC	UC	UC	UC

NOZZLE SIZE	PRESSURE (PSI)	FLOW RATE (GPM)	SPEED (MPH) - 20 INCH NOZZLE SPACING GALLONS PER ACRE 5.0	7.5	10.0	12.5	15.0	17.0	20.0	22.5	25.0
015	20	0.11	6.3	4.2	3.2	2.5	2.1	1.7	1.6	1.4	1.3
	30	0.13	7.7	5.1	3.9	3.1	2.6	1.9	1.8	1.7	1.5
	40	0.15	8.9	5.9	4.5	3.6	3.0	2.2	2.2	2.0	1.8
	50	0.17	10.0	6.6	5.0	4.0	3.3	2.5	2.5	2.2	2.0
	60	0.18	10.9	7.3	5.5	4.4	3.6	2.8	2.7	2.4	2.2
	70	0.20	11.8	7.9	5.9	4.7	3.9	3.1	2.9	2.6	2.4
	80	0.21	12.6	8.4	6.3	5.0	4.2	3.4	3.2	2.8	2.5
	90	0.23	13.4	8.9	6.7	5.3	4.5	3.6	3.3	3.0	2.7
02	20	0.14	8.4	5.6	4.2	3.8	3.4	2.8	2.1	1.9	1.7
	30	0.17	10.3	6.9	5.1	4.1	3.4	2.6	2.4	2.3	2.1
	40	0.20	11.9	7.9	5.9	4.8	4.0	3.0	2.9	2.6	2.4
	50	0.22	13.3	8.9	6.6	5.3	4.4	3.4	3.3	3.0	2.7
	60	0.24	14.5	9.7	7.3	5.8	4.8	3.8	3.6	3.2	2.9
	70	0.26	15.7	10.5	7.9	6.3	5.2	4.2	3.9	3.5	3.1
	80	0.28	16.8	11.1	8.4	6.7	5.6	4.5	4.2	3.7	3.4
	90	0.30	17.9	11.9	8.9	7.1	5.9	4.8	4.5	4.0	3.6
025	20	0.18	10.5	7.0	5.3	5.1	4.2	3.5	2.6	2.3	2.1
	30	0.22	12.9	8.6	6.4	5.1	4.3	3.2	3.0	2.9	2.6
	40	0.25	14.9	9.9	7.4	5.9	5.0	3.7	3.7	3.3	3.0
	50	0.28	16.6	11.1	8.3	6.6	5.5	4.2	4.2	3.7	3.3
	60	0.31	18.2	12.1	9.1	7.3	6.1	4.7	4.5	4.0	3.6
	70	0.33	19.6	13.1	9.8	7.9	6.5	5.2	4.9	4.4	3.9
	80	0.35	21.0	14.0	10.5	8.4	7.0	5.6	5.3	4.7	4.2
	90	0.38	22.3	14.9	11.1	8.9	7.4	6.0	5.6	5.0	4.5
03	20	0.21	12.6	8.4	6.4	6.3	5.0	4.2	3.2	2.8	2.5
	30	0.26	15.4	10.3	7.7	6.2	5.1	3.9	3.6	3.4	3.1
	40	0.30	17.8	11.9	8.9	7.1	5.9	4.5	4.4	4.0	3.6
	50	0.34	19.9	13.3	10.0	8.0	6.6	5.1	5.0	4.4	4.0
	60	0.37	21.8	14.5	10.9	8.7	7.3	5.7	5.5	4.8	4.4
	70	0.40	23.6	15.7	11.8	9.4	7.9	6.2	5.9	5.2	4.7
	80	0.42	25.2	16.8	12.6	10.1	8.4	6.7	6.3	5.6	5.0
	90	0.45	26.7	17.8	13.4	10.7	8.9	7.2	6.7	5.9	5.3
035	20	0.25	14.7	9.8	7.6	7.4	5.9	4.9	3.7	3.3	2.9
	30	0.30	18.0	12.0	9.0	7.2	6.0	4.5	4.2	4.0	3.6
	40	0.35	20.8	13.9	10.4	8.3	6.9	5.2	5.1	4.6	4.2
	50	0.39	23.2	15.5	11.6	9.3	7.7	5.9	5.8	5.2	4.6
	60	0.43	25.5	17.0	12.7	10.2	8.5	6.6	6.4	5.7	5.1
	70	0.46	27.5	18.3	13.8	11.0	9.2	7.3	6.9	6.1	5.5
	80	0.49	29.4	19.6	14.7	11.8	9.8	7.9	7.4	6.5	5.9
	90	0.53	-	20.8	15.6	12.5	10.4	8.4	7.8	6.9	6.2

NOZZLE SIZE	PRESSURE (PSI)	FLOW RATE (GPM)	SPEED (MPH) - 20 INCH NOZZLE SPACING GALLONS PER ACRE 5.0	7.5	10.0	12.5	15.0	17.0	20.0	22.5	25.0
04	20	0.28	16.8	11.2	8.4	6.7	5.6	4.8	4.2	3.7	3.4
	30	0.35	20.6	13.7	10.3	8.2	6.9	5.9	5.1	4.6	4.2
	40	0.40	23.8	15.8	11.9	9.5	7.9	6.8	5.9	5.3	4.8
	50	0.45	26.6	17.7	13.3	10.6	8.9	7.6	6.6	5.9	5.3
	60	0.49	29.1	19.4	14.5	11.6	9.7	8.3	7.3	6.5	5.8
	70	0.53	-	21.0	15.7	12.6	10.5	9.0	7.9	7.0	6.3
	80	0.57	-	22.4	16.8	13.4	11.1	9.6	8.4	7.5	6.7
	90	0.60	-	23.8	17.8	14.3	11.9	10.2	8.9	7.9	7.1
05	20	0.35	21.0	14.0	10.5	8.4	7.0	6.0	5.3	4.7	4.2
	30	0.43	25.7	17.1	12.9	10.3	8.6	7.3	6.4	5.7	5.1
	40	0.50	29.7	19.8	14.9	11.9	9.9	8.5	7.4	6.6	5.9
	50	0.56	-	22.1	16.6	13.3	11.1	9.5	8.3	7.4	6.6
	60	0.61	-	24.2	18.2	14.5	12.1	10.4	9.1	8.1	7.3
	70	0.66	-	26.2	19.6	15.7	13.1	11.1	9.8	8.7	7.9
	80	0.71	-	28.0	21.0	16.8	14.0	12.0	10.5	9.3	8.4
	90	0.75	-	29.7	23.8	17.8	14.9	12.7	11.1	9.9	8.9
06	20	0.42	25.2	16.8	12.6	10.1	8.4	7.2	6.3	5.6	5.0
	30	0.52	-	20.6	15.4	12.3	10.3	8.8	7.7	6.9	6.2
	40	0.60	-	23.8	17.8	14.3	11.9	10.2	8.9	7.9	7.1
	50	0.67	-	26.6	19.9	15.9	13.3	11.4	10.0	8.9	8.0
	60	0.73	-	29.1	21.8	17.5	14.5	12.5	10.9	9.7	8.7
	70	0.79	-	-	23.6	18.9	15.7	13.5	11.8	10.5	9.4
	80	0.85	-	-	25.2	20.2	16.8	14.4	12.6	11.2	10.1
	90	0.90	-	-	26.7	21.4	17.8	15.3	13.4	11.9	10.7
08	20	0.57	33.6	22.4	16.8	13.4	11.2	9.6	8.4	7.5	6.7
	30	0.69	-	27.4	20.6	16.5	13.7	11.8	10.3	9.1	8.2
	40	0.80	-	-	23.8	19.0	15.8	13.6	11.9	10.6	9.5
	50	0.89	-	-	26.6	21.3	17.7	15.2	13.3	11.8	10.6
	60	0.98	-	-	29.1	23.3	19.4	16.6	14.5	12.9	11.6
	70	1.06	-	-	-	25.1	21.0	18.0	15.7	14.0	12.6
	80	1.13	-	-	-	26.9	22.4	19.2	16.8	14.9	13.4
	90	1.20	-	-	-	28.5	23.8	20.4	17.8	15.8	14.3
10	20	0.71	-	28.0	21.0	16.8	14.0	12.0	10.5	9.3	8.4
	30	0.87	-	-	25.7	20.6	17.1	14.7	12.9	11.4	10.3
	40	1.00	-	-	29.7	23.8	19.8	17.0	14.9	13.2	11.9
	50	1.12	-	-	-	26.6	22.1	19.0	16.6	14.8	13.3
	60	1.22	-	-	-	29.1	24.2	20.8	18.2	16.2	14.5
	70	1.32	-	-	-	-	26.2	22.5	19.6	17.5	15.7
	80	1.41	-	-	-	-	28.0	24.0	21.0	18.7	16.8
	90	1.50	-	-	-	-	29.7	25.5	22.3	19.8	17.8

Use charts as a general guideline only. For nozzle-specific pressure ranges and flows, use the information in the nozzle selection app or the Pentair Hypro catalog.

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