

# INJECTOR ORIFICE CHARTS

## 8-19-3

10.5 lb/gal

8-19-3 OR 10.5 LB/GAL

### Pressure Recommendations: (with 5 lb check valves)

- ▶ Electric pumps: 12-30 PSI
- ▶ Hydraulic or piston pumps: 15-60 PSI

### Charts are based @ 60°F

- ▶ Cleanliness, viscosity, and temperature affect the flow rate.
  - ▶ Heavier fertilizers will have 5-15% less flow than chart indicates for a certain pressure.
  - ▶ Cold fertilizers will cause system pressure to increase at a given application rate.
  - ▶ The electric pump systems will have reduced flow and increased electrical current draw due to cold fertilizer increasing operating pressure. Use the largest orifice possible for cold weather operation.
  - ▶ **PLEASE NOTE:** We normally recommend using only 1 orifice under pressure when running 7-15 lbs of pressure. However, using 2 orifices under pressure can be beneficial because it will help eliminate fertilizer splatter or misting/volatilization of fertilizer when done in the following manner:
    - Use the correct size orifice above for 15-30 psi pressures
    - Use 2-3 times size orifice below, creating 5-7 lbs pressure to stream fertilizer into the soil
- NEVER USE 2 OF THE SAME SIZE ORIFICES IN YOUR SYSTEM!!**

### GALLONS PER ACRE 30" SPACING

ORIFICE	PSI	5 MPH	6 MPH	7 MPH	8 MPH
<b>001</b> .026 WHITE	15	2.1	1.8	1.5	1.3
	20	2.5	2.1	1.8	1.6
	30	3.0	2.6	2.2	1.9
	40	3.6	2.9	2.5	2.2
<b>0015</b> .031 BLACK	15	3.2	2.7	2.3	2.1
	20	4.2	3.1	2.7	2.3
	30	4.6	4.1	3.3	2.9
	40	5.3	4.5	4.2	3.3
<b>002</b> .036 SILVER	15	4.3	3.6	3.1	2.7
	20	5.0	4.2	3.6	3.1
	30	6.2	5.1	4.4	3.8
	40	7.1	5.9	5.1	4.5
<b>003</b> .041 NEON ORANGE	15	6.5	5.4	4.6	4.0
	20	7.5	6.3	5.4	4.7
	30	9.2	7.7	6.6	5.7
	40	10.6	8.8	7.6	6.6
<b>004</b> .047 NEON GREEN	15	8.7	7.2	6.2	5.4
	20	10.0	8.3	7.1	6.3
	30	12.2	10.2	8.8	7.7
	40	14.1	11.8	10.1	8.8
<b>005</b> .053 GOLD METALLIC	15	10.8	9.0	7.8	6.8
	20	12.5	10.4	8.9	7.9
	30	15.4	12.8	11.0	9.6
	40	17.7	14.7	12.6	11.1
<b>006</b> .058 PLUM PURPLE	15	12.9	10.8	9.3	8.1
	20	15.0	12.5	10.7	9.4
	30	18.8	15.4	13.1	11.5
	40	21	17.7	15.2	13.3
<b>008</b> .067 APPLE RED	15	17.3	14.5	12.4	10.8
	20	19.6	16.7	14.3	12.5
	30	24	21	17.5	15.4
	40	29	23	21	17.7
<b>010</b> .073 SKY BLUE	15	21	17.9	15.4	13.6
	20	25	21	17.9	15.6
	30	30	26	22	18.8
	40	36	29	25	22
<b>015</b> .092 BERRY PINK	15	32	27	23	21
	20	38	31	27	23
	30	46	38	33	29
	40	53	45	38	33
<b>020</b> .103 SUN YELLOW	15	43	36	31	27
	20	50	42	36	31
	30	62	51	44	38
	40	71	59	51	44
<b>030</b> 9/64 WALNUT BROWN	15	65	54	46	40
	20	75	63	54	47
	30	92	77	65	57
	40	106	88	76	66
<b>040</b> 5/32 DEEP BLUE	15	87	72	62	54
	20	100	83	71	63
	30	122	102	88	77
	40	141	118	101	88

### WHERE TABLES ARE BASED ON 30" NOZZLE SPACING

OTHER SPACING	26"	28"	32"	34"	36"	38"	40"	42"	44"
CONVERSION FACTOR (multiply)	1.15	1.07	.94	.88	.83	.79	.75	.71	.68

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