

millimeters per hour **Metric Rates**

Spacing	Flow (m ³ /hr)																			
Meters	0.07	0.11	0.18	0.36	0.56	0.72	0.90	1.08	1.44	1.80	2.16	2.52	2.88	3.24	3.60	3.96	4.32	5.40	6.40	7.20
1.5 x 1.5	32.0	48.0	80.0	160.0	240.0	320.0														
2 x 2	18.0	27.0	45.0	90.0	135.0	180.0														
2.5 x 2.5	11.5	17.3	28.8	57.6	86.4	115.2	144.0													
3 x 3	8.0	12.0	20.0	40.0	60.0	80.0	100.0	120.0	160.0											
3.5 x 3.5	5.9	8.8	14.7	29.4	44.1	58.8	73.5	88.2	117.6	146.9	176.3									
4 x 4	4.5	6.8	11.3	22.5	33.8	45.0	56.3	67.5	90.0	112.5	135.0									
5 x 5	2.9	4.3	7.2	14.4	21.6	28.8	36.0	43.2	57.6	72.0	86.4									
6 x 6	2.0	3.0	5.0	10.0	15.0	20.0	25.0	30.0	40.0	50.0	60.0									
6 x 9			3.3	6.6	10.0	13.3	16.6	20.0	26.6	33.3	40.0	46.6	53.0							
6 x 12			2.5	5.0	7.5	10.0	12.5	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0					
8 x 8			2.8	5.6	8.4	11.2	14.0	16.9	22.5	28.1	33.7	39.4	45.0	50.0						
9 x 9			2.2	4.4	6.6	8.9	11.1	13.3	17.8	22.2	26.6	31.1	35.5	40.0	44.4	48.8	53.3			
9 x 12			1.6	3.3	5.0	6.6	8.3	10.0	13.3	16.6	20.0	23.3	26.6	30.0	33.3	36.6	40.0	50.0	59.2	
9 x 14			1.4	2.8	4.3	5.7	7.1	8.6	11.4	14.3	17.1	20.0	22.8	25.7	28.5	31.4	34.3	42.8	50.8	
9 x 15			1.3	2.7	4.0	5.3	6.6	8.0	10.6	13.3	16.0	18.6	21.3	24.0	26.6	29.4	32.0	40.0	47.4	
9 x 18				2.2	3.3	4.4	5.5	6.6	8.9	11.1	13.3	15.5	17.8	20.0	22.2	24.4	26.6	33.3	39.5	44.4
12 x 12				2.5	3.7	5.0	6.2	7.5	10.0	12.5	15.0	17.5	20.0	22.5	25.0	27.5	30.0	37.5	44.4	50.0
12 x 15				2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0	24.0	30.0	35.5	40.0
12 x 18				1.6	2.5	3.3	4.2	5.0	6.6	8.3	10.0	11.6	13.3	15.0	16.6	18.3	20.0	25.0	29.6	33.3
15 x 15						3.2	4.0	4.8	6.4	8.0	9.6	11.2	12.8	14.4	16.0	17.6	19.2	24.0	28.4	32.0
15 x 18						2.6	3.3	4.0	5.3	6.6	8.0	9.3	10.6	12.0	13.3	14.6	16.0	20.0	23.7	26.6
15 x 21						2.3	2.8	3.4	4.6	5.7	6.8	8.0	9.1	10.3	11.4	12.6	13.7	17.1	20.3	22.8
18 x 18								3.3	4.4	5.5	6.6	7.8	8.9	10.0	11.1	12.2	13.3	16.6	20.0	22.2
18 x 21								2.8	3.8	4.7	5.7	6.6	7.6	8.6	9.5	10.5	11.4	14.3	16.9	19.0
18 x 24								2.5	3.3	4.2	5.0	5.8	6.6	7.5	8.3	9.1	10.0	12.5	14.8	16.6
21 x 21								2.4	3.2	4.1	4.9	5.7	6.5	7.3	8.1	8.9	9.8	12.2	14.5	16.3
21 x 24									2.8	3.6	4.3	5.0	5.7	6.4	7.1	7.8	8.6	10.7	12.7	14.3
21 x 27									2.5	3.2	3.8	4.4	5.1	5.7	6.3	7.0	7.6	9.5	11.3	12.7
24 x 24										3.1	3.7	4.3	5.0	5.6	6.2	6.9	7.5	9.4	11.1	12.5
24 x 30										2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	7.5	8.9	10.0
28 x 33											2.3	2.7	3.1	3.5	3.9	4.3	4.7	5.8	6.9	7.8
30 x 30											2.4	2.8	3.2	3.9	4.0	4.4	4.8	6.0	7.1	8.0
Product								Pattern Spacing*												
T-Spray™								up to 2.0 meters												
Super Spray®								up to 3.5 meters												
Xcel-Wobbler™ HA								up to 9.2 meters												
Xcel-Wobbler™ MA								up to 7.5 meters												
Wobbler® SA								up to 9.2 meters												
Wobbler® LA								up to 7.5 meters												
mini-Wobbler™								up to 6.0 meters												
i-mini-Wobbler™								up to 3.5 meters												
Smooth Drive™ HA								up to 12.2 meters												
Smooth Drive™ LA								up to 11.3 meters												
20 Series Impact								up to 12.0 meters												
30 Series Impact								up to 18.5 meters												
40 Series Impact								up to 20.0 meters												
50 Series Impact								up to 21.5 meters												
70 Series Impact								up to 27.5 meters												
80 Series Impact								up to 30.5 meters												

* Distance between sprinklers and rows in square or triangular patterns.

MAXIMUM PRECIPITATION RATES FOR LEVEL GROUND

Soil	Rate
Coarse Sands	19.0 - 25.4 mm/hr
Fine Sands	12.7 - 19.0 mm/hr
Fine Sandy Loams	8.9 - 12.7 mm/hr
Silt Loams	6.3 - 10.2 mm/hr
Clay Loams	2.5 - 7.6 mm/hr

KEY

m³/hr = flow per sprinkler

S = spacing of sprinklers along the lateral (in meters)

L = spacing between laterals (in meters)

(This applies to square, rectangular, or triangular spacing)

PRECIPITATION RATE FORMULA

$$\text{Application Rate} = \frac{\text{m}^3/\text{hr} \times 1000}{S \times L}$$

(mm per hour)

