

# Dilution and Application Tables

Dosage rates (furrow treatments) with different row spacings for 1 lb active ingredient (ai) per acre

Row spacing (inches)	Active ingredient per 1,000 lineal ft (grams)	Amount commercial product* (granules) per 1,000 lineal ft									
		1% granules		5% granules		10% granules		15% granules		50% granules	
		grams	oz	grams	oz	grams	oz	grams	oz	grams	oz
12	10.4	1,041.0	36.7	208.2	7.3	104.1	3.7	69.4	2.4	20.8	0.73
13	11.3	1,128.0	39.8	225.6	7.9	112.8	4.0	75.2	2.6	22.6	0.80
14	12.2	1,215.0	42.9	243.0	8.6	121.5	4.3	81.0	2.9	24.3	0.86
15	13.0	1,301.0	45.9	260.2	9.1	130.1	4.6	86.7	3.0	26.0	0.92
16	13.9	1,388.0	48.9	277.6	9.8	138.8	4.9	92.5	3.3	27.8	1.00
17	14.8	1,475.0	52.0	295.0	10.4	147.5	5.2	98.3	3.4	29.5	1.04
18	15.6	1,562.0	55.1	312.4	11.0	156.2	5.6	104.1	3.7	31.2	1.10
19	16.5	1,648.0	58.1	329.6	11.6	164.8	5.8	109.9	3.8	32.9	1.16
20	17.4	1,735.0	61.2	347.0	12.2	173.5	6.1	115.6	4.0	34.7	1.22
21	18.2	1,822.0	64.3	364.2	12.8	182.1	6.4	121.5	4.2	36.4	1.28
22	19.1	1,909.0	67.3	381.8	13.5	190.9	6.7	127.3	4.5	38.2	1.34
23	20.0	1,995.5	70.4	399.0	14.1	199.5	7.0	133.0	4.7	39.9	1.40
24	20.8	2,083.0	73.5	416.6	14.7	208.3	7.3	138.9	4.9	41.6	1.50
30	26.0	2,604.0	91.9	520.8	18.4	260.4	9.2	173.6	6.1	52.0	1.80
36	31.2	3,124.0	110.2	624.8	22.0	312.4	11.0	208.3	7.3	62.5	2.20
42	36.4	3,644.0	128.5	728.8	25.7	364.4	12.8	242.9	8.6	72.9	2.57
60	52.0	5,206.0	183.6	1041.2	36.7	520.6	18.4	347.1	12.2	104.1	3.70

\* Commercial product also may be called formulated product.

## Insecticides dilutions

	Amount of active ingredient (ai) recommended per acre									
	0.125 lb	0.25 lb	0.5 lb	0.75 lb	1 lb	1.5 lb	2 lb	2.5 lb	3 lb	
	Amount of commercial product* needed to obtain the above amounts of ai									
10%–12% emulsifiable concentrate (contains 1 lb ai per gal)	1 pt	1 qt	2 qt	3 qt	1 gal	1.5 gal	2 gal	2.5 gal	3 gal	
15%–20% emulsifiable concentrate (contains 1.5 lb ai per gal)	0.33 qt	0.66 qt	1.33 qt	2 qt	2.66 qt	1 gal	1.33 gal	1.66 gal	2 gal	
25% emulsifiable concentrate (contains 2 lb ai per gal)	0.5 pt	1 pt	1 qt	3 pt	2 qt	3 pt	1 gal	5 qt	1.5 gal	
40%–50% emulsifiable concentrate (contains 4 lb ai per gal)	0.25 pt	0.5 pt	1 pt	1.5 pt	1 qt	3 pt	2 qt	5 pt	3 qt	
60%–65% emulsifiable concentrate (contains 6 lb ai per gal)	0.167 pt	0.33 pt	0.66 pt	1 pt	1.33 pt	1 qt	2.66 pt	3.33 pt	2 qt	
70%–75% emulsifiable concentrate (contains 8 lb ai per gal)	0.125 pt	0.25 pt	0.5 pt	0.75 pt	1 pt	1.5 pt	1 qt	2.5 pt	3 pt	
25% wettable powder	0.5 lb	1 lb	2 lb	3 lb	4 lb	6 lb	8 lb	10 lb	12 lb	
40% wettable powder	5 oz	10 oz	1.25 lb	1.875 lb	2.5 lb	3.75 lb	5 lb	6.25 lb	7.5 lb	
50% wettable powder	0.25 lb	0.5 lb	1 lb	1.5 lb	2 lb	3 lb	4 lb	5 lb	6 lb	
5% dust	2.5 lb	5 lb	10 lb	15 lb	20 lb	30 lb	40 lb	50 lb	60 lb	
10% dust	1.25 lb	2.5 lb	5 lb	7.5 lb	10 lb	15 lb	20 lb	25 lb	30 lb	

\* Commercial product also may be called formulated product.

**Trees per acre and trees passed per minute at various ground speeds for several tree spacings**

Tree spacing (ft)	10	12	16	20	25	30	35	40
Trees/acre	435.2	302.5	170.0	108.9	69.7	48.4	35.6	27.2
<b>Trees/min. at:</b>								
1 mph	8.8	7.3	5.5	4.4	3.5	2.9	2.5	2.2
1.5 mph	13.2	11.0	8.2	6.6	5.3	4.4	3.8	3.3
2 mph	17.6	14.6	11.0	8.8	7.0	5.9	5.0	4.4
2.5 mph	22.0	18.3	13.7	11.0	8.8	7.3	6.3	5.5
3 mph	26.4	22.0	16.5	13.2	10.6	8.8	7.5	6.6

**Weight of powder required to prepare different amounts of spray mixture at different dosage levels**

Recommended dosage per 100			Weight of commercial product required to prepare spray mixture									
			50 gal		20 gal		10 gal		5 gal		1 gal	
<i>lb</i>	<i>oz</i>	<i>g</i>	<i>oz</i>	<i>g</i>	<i>oz</i>	<i>g</i>	<i>oz</i>	<i>g</i>	<i>oz</i>	<i>g</i>	<i>oz</i>	<i>g</i>
0.25	4	113	2	56	0.8	23	0.4	11	0.25	6	0.04	1
0.50	8	227	4	113	1.6	45	0.8	23	0.40	11	0.08	2
1.00	16	454	8	227	3.2	91	1.6	45	0.80	23	0.16	5
1.50	24	681	12	340	4.8	136	2.4	68	1.20	34	0.24	7
2.00	32	908	16	454	6.4	182	3.2	91	1.60	45	0.32	9
3.00	48	1,362	24	681	9.6	272	4.8	136	2.40	68	0.48	14
4.00	64	1,816	32	908	12.8	363	6.4	182	3.20	91	0.64	18
5.00	80	2,270	40	1,135	16.0	454	8.0	227	4.00	113	0.80	23

**Volume of liquid pesticide required to prepare different amounts of spray mixture at different dilutions**

Dilution of spray required	Recommended dosage of commercial product in 100 gallons of water			Volume of commercial product required to prepare spray for									
				50 gal		20 gal		10 gal		5 gal		1 gal	
	<i>cups</i>	<i>pt</i>	<i>qt</i>	<i>pt</i>	<i>cc</i>	<i>pt</i>	<i>cc</i>	<i>cc</i>	<i>tsp</i>	<i>cc</i>	<i>tsp</i>	<i>cc</i>	<i>tsp</i>
1:3,200	0.5	0.25	0.12	0.125	59.15	0.05	23.7	11.8	2.4	5.9	1.2	1.18	0.2
1:1,600	1.0	0.50	0.25	0.250	118.5	0.10	47.7	23.7	4.8	11.8	2.4	2.37	0.5
1:800	2.0	1.00	0.50	0.500	236.6	0.20	94.6	47.3	9.6	23.7	4.8	4.73	1.0
1:400	4.0	2.00	1.00	1.000	473.2	0.40	189.3	94.6	19.6	47.3	9.2	9.46	1.9
1:200	8.0	4.00	2.00	2.000	946.4	0.80	378.6	189.3	38.3	94.6	19.2	18.93	3.8
1:100	16.0	8.00	4.00	4.000	1,892.8	1.60	757.1	378.6	76.6	189.3	38.3	37.86	7.7
1:50	32.0	16.00	8.00	8.000	3,785.6	3.20	1,514.2	757.2	153.2	378.6	76.6	75.71	15.3
1:25	64.0	32.00	16.00	16.000	7,571.2	6.40	3,028.5	1,514.2	306.4	757.1	153.7	151.42	30.6

**Soil fumigation calibration: flow rate per nozzle in cc per minute for ground speed of 1 mile per hour**

Gallons per acre	Nozzle spacing				
	6 inches	8 inches	9 inches	10 inches	12 inches
5	19	26	29	32	38
6	23	31	34	38	46
7	27	36	40	45	53
8	31	41	46	51	61
10	38	51	57	64	77
20	77	102	115	128	153
25	96	128	143	159	191
30	115	153	172	191	229