

# Reference Tables

**Table 1: CONTAINER MEASUREMENTS**

Container Size	Height	Diameter	Outside		Inside		Volume Cu. Ft.
			Width	Diagonal	Width	Diagonal	
# 1	7"	6.5"					0.13
# 5	12"	11"					0.66
# 15	18"	16"					2.09
24" Box	21"		24"	34"	22"	31"	5.88
36" Box	30"		37"	52"	35"	49"	21.27
48" Box	42"		52"	73"	48"	67"	56.00
60" Box	48"		65"	89"	60"	84"	100.00

The above are approximate as actual container sizes may vary slightly. Volume based on soil mix to top of container. Actual soil mix level will be below top of container to permit irrigation during plant growth.

**Table 2: CONTAINER WEIGHTS AND VOLUME**

Container Size	Approximate Weight	Approximate Units per Open Bobtail Truck	Approximate Units per 48' Semi Truck
1 Gallon	7 lbs.	1,500 - 3,000	8,000 - 10,000
5 Gallon	25 lbs.	500 - 600	1,500 - 2,000
15 Gallon	70 lbs.	150	300 - 400
24" Box	250 lbs.	30	72
36" Box	850 lbs.	10	32
48" Box	2,250 lbs.	4	12
60" Box	3,500 lbs.	2	6

Container weights will vary with container mix and moisture content. Approximate Units/Truck will vary with the the variety mix and size of the plant material.

**Table 3: PIT EXCAVATION VOLUME - ROUND PITS**

Container Size	Pit Size		Displacement		Back-Fill Required	
	Length	Depth	Soil Volume	Container Stock	Cu. Ft.	Cu. Yds.
1 Gallon	12"	12"	0.78 cu. ft.	0.13 cu. ft.	0.65	0.02
5 Gallon	20"	20"	3.60 cu. ft.	0.66 cu. ft.	2.94	0.11
15 Gallon	32"	24"	11.10 cu. ft.	2.09 cu. ft.	9.01	0.33
24" Box	40"	24"	17.40 cu. ft.	5.88 cu. ft.	11.52	0.43
36" Box	60"	32"	52.36 cu. ft.	21.27 cu. ft.	31.09	1.15
48" Box	80"	36"	104.70 cu. ft.	52.41 cu. ft.	52.29	1.94
60" Box	100"	42"	190.80 cu. ft.	104.17 cu. ft.	86.63	3.21

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**Table 4: PIT EXCAVATION VOLUME - SQUARE PITS**

Container Size	Pit Size			Displacement		Back-Fill Required	
	Length	Width	Depth	Soil Volume	Container Stock	Cu. Ft.	Cu. Yds.
1 Gallon	10"	10"	12"	0.7 cu. ft.	0.13 cu. ft.	0.57	0.02
5 Gallon	18"	18"	18"	3.7 cu. ft.	0.66 cu. ft.	3.04	0.11
15 Gallon	30"	30"	24"	12.5 cu. ft.	2.09 cu. ft.	10.41	0.39
24" Box	48"	48"	24"	32 cu. ft.	5.88 cu. ft.	26.12	0.97
36" Box	66"	66"	32"	80.6 cu. ft.	21.27 cu. ft.	59.33	2.20
48" Box	90"	90"	36"	168.7 cu. ft.	52.41 cu. ft.	116.29	4.31
60" Box	108"	108"	42"	283.5 cu. ft.	104.17 cu. ft.	179.33	6.64

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**Table 5: PLANTS PER HUNDRED SQUARE FEET**

*Plants Required per One-Hundred Square Feet: Various Spacings*

Spacing Inches	Plants pre 100 Sq. Ft.	Spacing Inches	Plants per 100 Sq. Ft.
4"	900	18"	45
6"	400	24"	25
8"	225	30"	16
9"	178	36"	11.11
10"	144	48"	6.25
12"	100	72"	2.78
16"	56		

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**Table 6: PLANTS PER LINEAR FOOT**

*Plants Required per Linear Foot: Various Spacings*

Spacing Feet	Plants pre 100 Ln. Ft.	Spacing Feet	Plants per 100 Ln. Ft.
0.33'	300	5.0'	20
0.50'	200	5.5'	
0.67'	150	6.0'	16.7
1.0'	100	6.5'	15.4
1.5'	66.7	7.0'	14.3
2.0'	50	7.5'	13.3
2.5'	40	8.0'	12.5
3.0'	33.3	8.5'	11.8
3.5'	28.6	9.0'	11.1
4.0'	25	9.5'	10.5
4.5'	22.3	10.0'	10

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**Table 7: GROUND COVERAGE PER FLAT**

*Area Required: Ground Covers: Square Feet per Flat*

Spacing in Inches	Plants per Flat			
	50	64	81	100
4.00	5.56	7.11	9.00	11.11
6.00	12.50	16.00	20.25	25.00
8.00	22.22	28.44	36.00	44.44
9.00	28.12	36.00	45.56	56.25
10.00	34.72	44.44	56.25	69.44
12.00	50.00	64.00	81.00	100.00
16.00	88.89	113.77	144.00	177.77
18.00	112.50	144.00	182.25	225.00
24.00	200.00	256.00	324.00	400.00
30.00	312.50	400.00	506.25	625.00

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**Table 8: WEIGHTS OF SOME EARTHEN MATERIALS**

Earth	# / Cu. Ft.	# / Cu. Yd.	# / Cu. Yd. / Ton	Tons / Cu. Yd.
Clay (wet)	105 to 120	2835 to 3240	0.71 to 0.62	1.42 to 1.62
Clay (dry)	90 to 110	2430 to 2970	0.82 to 0.67	1.22 to 1.49
Granite	170	4590	0.44	2.30
Gravel	120 to 135	3240 to 3645	0.62 to 0.55	1.62 to 1.82
Loam (dry-compact)	90 to 100	2430 to 2700	0.82 to 0.74	1.22 to 1.35
Loam (dry-loose)	75 to 90	2025 to 2430	0.99 to 0.82	1.01 to 1.22
Peat Moss (compact)	15 to 18	405 to 486	4.9 to 4.1	0.20 to 0.24
Peat Moss (loose)	3 to 5	81 to 135	24.7 to 14.8	0.04 to 0.07
Sand (dry)	95 to 110	2565 to 2970	0.78 to 0.67	1.28 to 1.49
Sand (wet)	120 to 130	3240 to 3510	0.62 to 0.57	1.62 to 1.76
Silt (wet)	130 to 145	3510 to 3915	0.57 to 0.51	

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