

Number of Plants or Trees that can be planted on an acre of ground, at the following distances apart, in feet.

Distances apart.	No. of Plants.	Distances apart.	No. of Plants.
1 by 1.....	43,560	7 by 7.....	888
1½ " 1½.....	19,360	8 " 8.....	680
2 " 1.....	21,780	9 " 9.....	537
2 " 2.....	10,890	10 " 10.....	435
2½ " 2½.....	6,969	11 " 11.....	360
3 " 1.....	14,520	12 " 12.....	302
3 " 2.....	7,260	13 " 13.....	257
3 " 3.....	4,840	14 " 14.....	222
3½ " 3½.....	3,555	15 " 15.....	193
4 " 1.....	10,890	16 " 16.....	170
4 " 2.....	5,455	17 " 17.....	150
4 " 3.....	3,630	18 " 18.....	134
4 " 4.....	2,722	19 " 19.....	120
4½ " 4½.....	2,151	20 " 20.....	108
5 " 1.....	8,712	24 " 24.....	75
5 " 2.....	4,356	25 " 25.....	69
5 " 3.....	2,904	27 " 27.....	59
5 " 4.....	2,177	30 " 30.....	48
5 " 5.....	1,742	40 " 40.....	27
5½ " 5½.....	1,417	50 " 50.....	17
6 " 6.....	1,210	60 " 60.....	12
6½ " 6½.....	1,031	66 " 66.....	10

Multiply the distances into each other, and divide it by the square feet in an acre, or 43,560, and the quotient is the number of plants.

VELOCITY OF WIND.

Wind is air in motion. Its force depends on its speed. When its motion is slow, it constitutes the soft, gentle breeze. As the velocity increases, the force becomes greater, and the strong gale sweeps round the arms of the wind-mill with the strength of many horses and huge ships are driven swiftly through the waves by its pressure. By a still greater velocity of the air, its power becomes more irresistible, and solid buildings totter, and forest trees are torn up by the roots in the tracks of the tornado.

The force of wind increases directly as the square of the velocity. Thus a wind blowing ten miles an hour, exerts a pressure four times as great as at five miles an hour, and twenty-five times as great, as at two miles an hour. The following table exhibits the force of wind at different degrees of velocity:—

Miles an hour.	Pressure in lbs on a square foot.	Description.
1	.005	Hardly perceptible.
2	.020	
3	.045	
4	.080	Light breeze.
5	.125	
6	.180	
7	.320	Gentle, pleasant wind.
10	.500	
15	1.125	
20	2.000	Very brisk.
25	3.125	
30	4.500	
35	6.125	Strong, high wind.
40	8.000	
45	10.125	
50	12.500	Storm or tempest.
60	18.000	
80	32.000	
100	60.000	Hurricane.
		Tornado, tearing up trees, and sweeping off buildings.