



SOYBEAN REPLANT CALCULATIONS

Accurate stand counts are necessary to make soybean replant decisions. Other contributing factors include yield potential of the existing stand, planting date, and the cost of replanting. Many times, replanting decisions are based on a quick survey that underestimates the actual stand count. The following population charts show two methods used to calculate stand counts. One utilizes a square yard or various diameter circles for calculating stand counts, the other uses plants per foot in different row widths.

To estimate stand densities, take at least ten random counts across the field to arrive at an average. Do not restrict the counts to the best or the worst appearing areas. The hula hoop method can be used to rapidly count plants, especially in narrow rows. Throw or roll the hoop and allow it to fall at random, then count the number of plants inside the circle.

POPULATIONS BY SQUARE YARDS OR CIRCLES

PLANTS COUNTED	SQUARE YARD	38" CIRCLE	36" CIRCLE	34" CIRCLE	32" CIRCLE	30" CIRCLE
10	48,000	55,000	62,000	69,000	78,000	89,000
12	58,000	66,000	74,000	83,000	94,000	107,000
14	68,000	77,000	86,000	97,000	109,000	124,000
16	77,000	89,000	99,000	110,000	125,000	142,000
18	87,000	100,000	111,000	125,000	140,000	160,000
20	97,000	111,000	123,000	138,000	156,000	178,000
22	106,000	122,000	136,000	152,000	172,000	196,000
24	116,000	133,000	148,000	166,000	187,000	213,000
26	126,000	144,000	160,000	179,000	203,000	231,000
28	136,000	155,000	173,000	193,000	218,000	249,000
30	145,000	166,000	185,000	207,000	234,000	266,000
32	155,000	177,000	197,000	221,000	250,000	284,000
34	165,000	188,000	209,000	235,000	265,000	302,000
36	174,000	199,000	222,000	249,000	281,000	
38	184,000	210,000	234,000	263,000	297,000	
40	193,000	221,000	247,000	277,000		
42	203,000	232,000	259,000	290,000		
44	213,000	243,000	271,000	304,000		
46	223,000	255,000	284,000			
48	232,000	266,000	296,000			
50	242,000	277,000				
52	252,000	288,000				



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POPULATIONS BY DIFFERENT ROW WIDTHS

PLANTS/ROW FOOT	38"	36"	30"	20"	15"	10"	7"
1	13,800	14,500	17,400	26,100	34,800	52,200	74,700
2	27,500	29,000	34,800	52,300	69,600	104,600	149,300
3	41,300	43,600	52,300	78,400	104,600	156,800	224,000
4	55,000	58,100	69,700	104,500	139,400	209,000	298,700
5	68,800	72,600	87,100	130,700	174,200	261,400	373,400
6	82,500	87,100	104,500	156,800	209,000	313,600	
7	96,300	101,600	122,000	183,000	244,000		
8	110,000	116,200	139,400	209,100	278,800		
9	123,800	130,700	156,800	235,200	313,600		
10	137,600	145,200	174,200	261,400			
11	151,300	159,970	191,700	287,500			
12	165,100	174,200	209,100	313,600			
13	178,800	188,800	226,500				
14	192,600	203,300	243,900				
15	206,300	217,800	261,400				

ESTIMATED SOYBEAN YIELD POTENTIAL AT VARYING POPULATIONS

POPULATION	30" ROW	15" ROW	7" ROW
160,000	100%	100%	100%
120,000	100%	100%	100%
80,000	100%	98%	96%
60,000	94%	93%	92%
40,000	88%	88%	87%

ESTIMATED EFFECT OF PLANTING DATE ON SOYBEAN YIELD

PLANTING DATE	% YIELD POTENTIAL
Late April	98%
Early May	100%
Mid-May	98%
Early June	89%
Mid-June	82%
Early July	47%