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Plant by the Seed Not by the Pound

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Seed size varies greatly among soybean varieties. In addition, weather conditions during seed filling can greatly affect final seed size of soybean, regardless of variety. Dry weather in August, an early frost, and late season diseases can all decrease seed size. Because of these variations in seed size, planters and drills should be calibrated for seed number and not for pounds of seed. The following table illustrates the effect of seed size on the number of acres a 50 pound bag will plant. A 50 pound bag of a large-seeded variety (2250 seeds/pound) would plant 0.64 acres if the planter is calibrated to drop 175,000 seeds/acre. In contrast, a bag of a small seeded variety (4000 seeds/pound) would plant 1.14 acres, an increase of 78%.

Soybean growers should not over-plant soybean. Each additional seed per foot of row in 30 inch rows adds 17,000 seeds per acre. In drilled rows, just one extra seed dropped every three feet will add over 23,000 seeds per acre. Higher than normal stands, particularly combined with wet weather in June will increase plant height and increase lodging. Lodging may decrease yield and makes harvest much more difficult.

Number of seeds/pound	Number of seeds/50 lb bag	Number of acres planted with 1 bag at seeding rate of:		
		150,000 seeds/acre	175,000 seeds/acre	200,000 seeds/acre
2250	112,500	0.75	0.64	0.56
2500	125,000	0.83	0.71	0.63
2750	137,500	0.92	0.79	0.69
3000	150,000	1.00	0.86	0.75
3250	162,000	1.08	0.93	0.81
3500	175,000	1.17	1.00	0.88
3750	187,500	1.25	1.07	0.94
4000	200,000	1.33	1.14	1.00
4250	212,500	1.42	1.21	1.06