

Estimating soybean yields is no easy task

Estimating crop yield helps farmers look toward the future and make plans as harvest approaches. With corn, there are standard methods for estimating yield. But how can you estimate yield in soybeans? When soybean pods start forming, early counting for soybean yield estimates may be premature.

Some recommend starting estimates at R5 when the first seeds appear. "The later you go, the better," Laura Lindsey, Ohio State University Extension soybean specialist says. "Those seeds continue to fill and R7 or R8 is better. That's when pods are turning brown and the best time." She acknowledges at that point, not long before combines roll, the knowledge may have less value. If you want to check the yields in your soybean fields, there are some simple steps to follow that Lindsey has outlined below.

Checking soybean yield

- 1 Count plants per acre.** Count the number of pod-bearing plants in 1/1,000th of an acre. In a 7.5-inch row spacing, count the number of plants in 69-feet, 8-inches of row. In a 15-inch row spacing, count the number of plants in 34-feet, 10-inches of row. And in the 30-inch row spacing, count the number of plants in 17-feet, 50-inches of row.
- 2 Estimate pods.** Count the number of pods (containing one or more seeds) from 10 plants selected at random. Divide the total number of pods by 10 to get the average number of pods per plant.
- 3 Count seeds per pod.** Count the number of seeds from 10 pods selected at random. Generally, the number of seeds per pod is 2.5, but this number can be less in stressful environmental conditions. Divide the total number of seeds by 10 to get the average number of seeds per pod.
- 4 Determine seeds per pound.** To estimate seeds size, assume there are 3,000 seeds per pound. If the soybean plants experienced stress, seed size will be reduced and it will take more seeds to make one pound. Use a seed size estimate of 3,500 seeds per pound if smaller seeds are expected because of late-season stress.
- 5 Put this formula to work.** Using the numbers derived from each step, you can estimate soybean bushels per acre: $\text{bushels per acre} = [(\text{plants}/1,000\text{th acre}) \times (\text{pods}/\text{plant}) \times (\text{seeds}/\text{pod})] / [(\text{seeds}/\text{pounds}) \times 0.06]$.

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