

Replanting Soybeans

Adapted directly from University of Wisconsin Extension—www.coolbean.info. “Think Twice Before Replanting Soybeans”.
http://www.coolbean.info/library/documents/SoybeanReplant_2014_FINAL.pdf

As soybeans emerge, evaluating the stand is important to identify problems from planting, weather, insects, or disease. Evaluating your stands early can help you identify concerns while there may be time to remedy them.

Table 1.

Plant conditions when determining survival after severe weather.

Plant Condition	Will the plant survive?
Plant cut off below the cotyledons	No
Plant missing only one cotyledon	Yes
Plant missing both cotyledons but growing point intact	Yes
Plant cut off above unifoliate leaves	Yes
Plant lightly bruised on the stem	Yes
Plant heavily bruised and folded over	No

Determine the Initial Plant Stand

You first need to accurately determine the plant stand by using the hula hoop method or counting plants in a row. Review the [May 5, 2016 Agronomic Directions](#) for explanations of these methods. If severe weather is the cause of reduced stand or plant injury, stand counts should be performed 3-5 days after damage has occurred in order to give the plants time to recover. Only live plants that are expected to survive should be counted. Refer to Table 1.

Replant Threshold

Highest yields are achieved with initial plant stands >100,000 plants/acre. Replanting initial soybean stands <100,000 plants/acre significantly increased yield, but not to levels attained by initial plants stands >100,000 plants/acre, where replant if not beneficial. Therefore, the threshold for soybean replanting is 100,000 plants/acre.

Replant Options

Once you’ve determined replant is needed, you’re faced with the decision to fill in the initial stand or perform a tillage operation and completely replant the entire stand.

University of Wisconsin studies show when a plant stand of 37,000 plants/acre was filled in with only 100,000 seeds/acre, its yield was the same or higher than replanting the entire stand with 220,000 seeds, 180,000 seeds, and 140,000 seeds per acre. Their study (U of WI, Gaspar and Conley, 2014) found that a tillage operation limited yield potential by essentially delaying planting and reducing cumulative light interception of the entire stand compared to only a portion of the stand when the fill in method was used.

Therefore, filling in soybean stands below the replant threshold (100,000 plants/acre) is the best method of replanting and replant seeding rates should be high enough to increase the final plant stand over 100,000 plants/acre.

When making replant decisions, you must also take into account other economics. These include additional seed, fuel, labor and machinery costs; along with potential crop insurance replant payments. Producers should consult their crop insurance agent and seed representative before making any replant decisions.

Download the new app “Bean Cam” - Wisconsin’s Soybean Replant Calculator from iTunes or PlayStore.

The app calculates plant stand (population) by averaging five plant count samples taken randomly within a soybean field during the VC, V1 or V2 growth stage.