



Lodging in Soybeans

Lodging decreases profitability

- Lodging can decrease soybean yields by up to 10%
- Primarily a problem in high-yielding soybeans



Good standability usually results in both higher yields and lower harvest losses.

Two Main Factors Influence Lodging

- Variety
- Environment

Variety Selection

- At Pioneer, we stress the importance of getting the right product on the right acre.
- Consider Harvest Standability Scores when selecting soybean varieties.
- Plant height has been shown to be positively correlated with both yield and lodging.
- Consult with a Pioneer Sales Representative to find the right balance between yield potential and standability at harvest.

Environment

- Higher yielding environments generally promote taller, more robust plants which are more susceptible to lodging.
- Pioneer data has shown that planting early can avoid warmer temperatures during the vegetative stage of growth, therefore reducing plant height and decreasing susceptibility to lodging, while *increasing* yield potential.
- Consider planting higher yielding, more lodging-prone fields first.
- Populations of around 125,000 to 150,000 have generally produced maximum yield.
- Higher populations may promote lodging without increasing yield.

Timing of lodging

- Simulated lodging studies have shown that lodging before R2 (full flowering) does not significantly impact yield because soybean branches take on main stem characteristics
- Lodging from R3 (beginning pod) to R5 (beginning seed) has been shown to have the greatest impact on yield
- Lodging from R6 (full seed) to maturity impacts yield to a lesser degree, but can have negative impacts on harvestability



Left: lodging resistant variety. **Right:** susceptible variety.

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