

Supplementary Table S1. Mean lodging scores for breeding lines in 2014

| Variety | Mean Lodging Score ^z | Rank Estimate ^y |
|-----------|---------------------------------|----------------------------|
| 91-145 | 3.4 | 62.4 a |
| 51-23 | 3.0 | 56.0 ab |
| 91-103 | 3.0 | 56.0 ab |
| SSR51-70 | 3.0 | 53.8 abc |
| W04-1002 | 3.0 | 51.6 abcd |
| SSR81-62 | 2.8 | 50.6 abc |
| 41-39 | 2.6 | 45.2 bcd |
| 52-14 | 2.2 | 35.6 cdef |
| SSR81-107 | 2.2 | 34.4 de |
| 91-44 | 2.0 | 29.0 e |
| 52-82B | 1.6 | 20.6 ef |
| Dwight | 1.6 | 20.6 ef |
| 52-11 | 1.5 | 18.5 efg |
| 91-38 | 1.4 | 16.4 fg |
| AxN-1-55 | 1.0 | 8.0 g |

^zSoybean lodging was scored on a 1-5 scale: 1= upright. 2 = 25-degree lean. 3 = 45-degree lean. 4 = more than 45-degree lean and 5 = laying on the ground. This scale represents the approximate average rating for the whole plot.

^yRank estimates were generated to compare categorical lodging scores. Values followed by the same letter are not significantly different based on Fisher's Least Significant Difference (LSD; $\alpha=0.05$).