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A field study was conducted at the NDSU Carrington Research Extension Center to examine the performance of soybean under three tillage systems. Experimental design was a randomized complete block with four replications. The 2004 previous crop was wheat. The dryland trial was established on a Heimdal loam soil with $56 \mathrm{lb} / \mathrm{A}(0-24$ ") nitrate-N, 10 ppm P205, 189 ppm K2O, $2.9 \%$ organic matter and 6.7 pH . Strip-till treatments were applied on November 8 using a Yetter strip-till opener with 22inch row spacing using a 4 - to 5 -inch tillage depth that established a berm 6 - to 8 -inches wide. The conventional-till plots were tilled twice with a disk on November 8. Innoculated 'RG200RR' soybean was planted with a John Deere 750 no-till single-disk drill in 21-inch rows on May 17. The trial was harvested with a plot combine on September 21.

Plant development and growth were similar among tillage systems (Table). Plant stand averaged over 240,000 plants/A, with stands tending to be highest with conventional till. Root and seed disease were similar among tillage systems. Seed yield tended to be greater with strip till than the other two tillage systems. Seed quality was similar among treatments.

| Table. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Trt | Plant emerge | Plant stand | Ave root length | Ave root disease lesion length | Days to flower | PM | Plant height | Pod height | Seed yield | Test weight | $\begin{gathered} 250 \\ \text { KWT } \end{gathered}$ | Oil | Protein | Seed germ | Seed fungi | Seed bact |
|  | Jday | plt/A | mm | mm | Jday | Jday | inches | inches | bu/A | lb/bu | g | \% | \% | \% | 0-5 | 0-5 |
| conv | 146 | 252329 | 129 | 26 | 183 | 240 | 8.0 | 25.3 | 21.7 | 58.7 | 35.0 | 20.6 | 35.5 | 96 | 2.4 | 1.1 |
| no-till | 146 | 230511 | 132 | 26 | 183 | 240 | 7.8 | 24.0 | 22.6 | 58.8 | 34.4 | 20.4 | 34.8 | 94 | 2.1 | 1.8 |
| strip till | 146 | 238100 | 130 | 24 | 183 | 241 | 7.5 | 25.5 | 23.4 | 59.0 | 35.5 | 20.7 | 35.2 | 96 | 2.5 | 1.3 |
| mean | 146 | 240314 | 193 | 25 | 183 | 240 | 25 | 7.8 | 22.6 | 58.8 | 35.0 | 20.6 | 35.2 | 95 | 2.3 | 1.4 |
| CV (\%) | 0.4 | 13.1 | 11.5 | 20.4 | 0.0 | 0.4 | 6.5 | 11.6 | 11.2 | 0.5 | 2.2 | 1.6 | 1.1 | 5.8 | 21.7 | 26.4 |
| $\begin{array}{\|l\|} \hline \text { LSD } \\ (0.05) \\ \hline \end{array}$ | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS |

