

Strip-Till Rooting Is Going the Distance

Orthman Manufacturing, Inc. Tillage Comparison Study with Four Stacked Varieties

Lexington, Nebraska

Update as of August 8, 2007

Our on-going field research with two major players in corn production in Nebraska, Iowa, and South Dakota joined efforts to better understand what is happening underground when tillage and fertility placement questions face today's growers and here we have an update. Today corn is fully pollinated and is filling out the ears. A couple of weeks ago we excavated roots again to measure total length and depth of the four varieties, two from NC+ and two from Mycogen. Below are the results in graphic format to let you know how roots are progressing in the Platte River terraces near Lexington, Nebraska. Conditions as of the last week of July; soil moisture --- in the conventional tilled plots 0 -1ft. 85% of field capacity (F.C.), 1 – 2 ft. 75-80% of F.C., 2 – 3 ft. 90% of F.C., 3 – 4 ft. 95 – 100% of F.C. In the strip tilled plots; 0 -1ft. 85% of field capacity (F.C.), 1 – 2 ft. 70-75% of F.C., 2 – 3ft. 75 – 80% of F.C., and 3 – 4ft. 90% of F.C. Water table was observed at 54 inches in the strip-till plots and 49 inches in the conventional plot area.

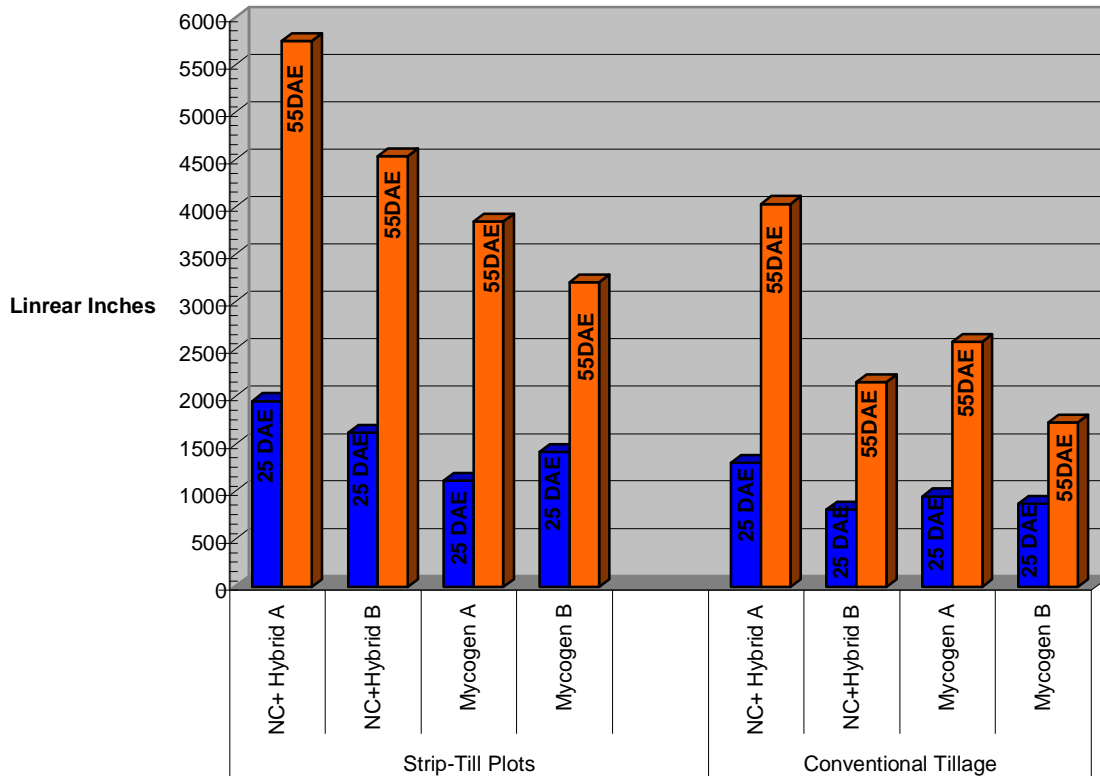


Figure 1. Chart depicting total linear root growth per plant at 25 days after emergence (DAE) and 55 DAE.

In the strip-till plots NC+ hybrid A maximum depth 53", NC+ hybrid B max. depth 50"; Mycogen hybrid A was 43", Mycogen hybrid B was 41". In the conventional plots: plots NC+ hybrid A maximum depth 46", NC+ hybrid B max. depth 40"; Mycogen hybrid A was 40", Mycogen hybrid B was 40".

We will see all how this translates to production come October, keeping you posted is why we feel at Orthman we are working for you, the grower. When we harvest corn we can draw some conclusions.