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Results of Strip-Till with Precision Based Sidedress Fertilization Practices at Orthman Research Proving Grounds

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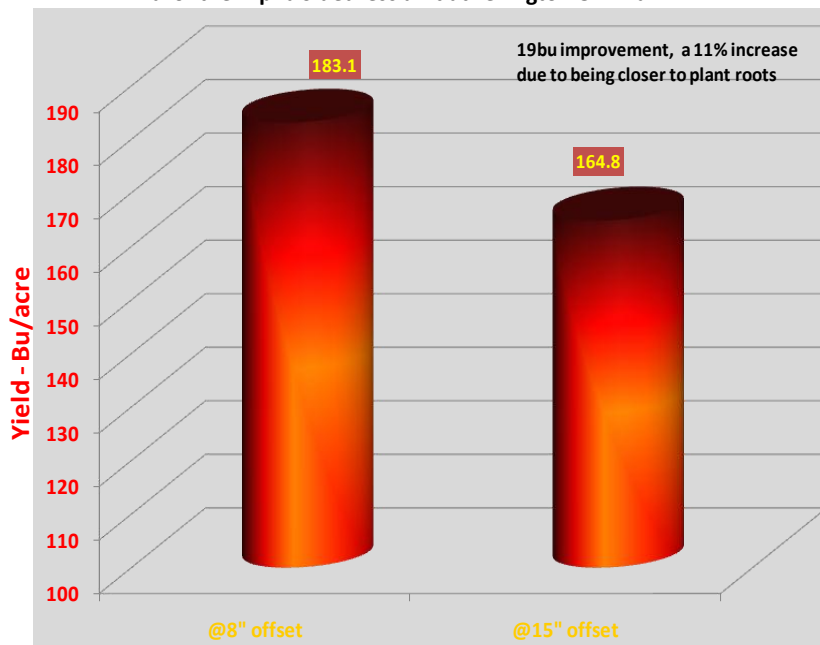
In continuation of the Sustainable Projects at **Orthman Research & Proving Grounds** – and even in the tough years of drought there is news that the Strip-Tillage method is having a positive impact in corn. Agronomist, Mike Petersen offers this brief look at recent findings.



Sidedressing N at NC State Univ. projects
Doing a better job of managing the 'in-crop' fertilization is a challenge for both irrigated and rainfed-only farmers. We at Orthman are testing and determining how, when, depth and proper distance from the growing plant fertilization. So what gives the needed advantage for the crop to reach yield potential? In the spring of 2012, we injected 28% liquid urea at two distances away from the plant at V6-V8 stage. The chart to the right gives you the average yields of two plots 600 ft long by 16 rows wide. The improvement when we injected N closer to the plant than the middle of the row is a 19 bu/acre boost in yield. That is a 11% increase. At Orthman we are moving into the future of what are the best methods for better dosing of N incrementally to corn.



Trial of the Alpha Sidedress unit at Lexington OMI Farm



Tillage & Fertility Effects: Managing fertility with strip-tillage methodology and 'in-crop' fertilization with a coulter injection implement and RTK guidance.

University researchers for several years are united in recommending split applications of the nitrogen fertilizer programs farmer's use in corn production. Feeding the corn plant in doses that reach the root at better times in the life-cycle of the plant is smart business. Nitrogen in the soil solution is very mobile and can race out ahead of the roots growth patterns and be lost for production. We can also have N mineralize, be used up by microbes to digest organic materials and/or denitrify – all losses to the next corn crop.

Employing up-to-date 'spoon feeding' can decrease losses, keep N within reach of the active rooting profile season long and potentially use less which is an economic factor. With that we recommend precise placed 'in-crop' nitrogen.

Mike Petersen, Lead Agronomist, Orthman Mfg.