

INTERNATIONAL STRIP-TILL NEWS

By: Michael Petersen, Lead Agronomist, Orthman Mfg.

We are now seeing some glimmer of activity with the Strip-Tillage system of farming row crops in the High Feldt of South Africa. The good folks with JWL Enterprises in Ermelo, ZA east of Johannesburg about 3 hours are advocating the use of the Orthman 1tRIPr methodology and placing fertilizers below the seedrow.

Much of the Highveld region of the nation of South Africa is semi-arid is raising maize with an annual precipitation less than 500mm (19+ inches) and doing quite well. For the past several years the South African farmer has dealt with drought which has taken its toll on production. With sporadic rainfall and high evaporation rates these farmers face what we know to be barely sustainable production levels. The Highveld is a pretty ideal area to raise maize at elevation above 1300m. The nights cool down reasonably which is ideal for maize production.



South African grower strip-tilling & planting corn

The harvested crop in 2012 which is our late spring in the northern hemisphere, the JWL and Mpumalanga Trials on two cattle and corn farmers farms was very consistent with what the surrounding farmers experienced. What we felt was good news from trials that tried broadcast fertilizer applications to split applications, to topdressing and strip-tillage and wanted to share that with all of you. The two growers were pleased with the fuel and time savings with the results.

Near the community of Middleburg (see image of Mpumalanga province below), our first grower gave us these results:



The star on the map is ~120km (75mi) east of Johannesburg.

No-Till corn: 10.62tons/hectare or 169.1bu/acre
Strip-Till corn: 9.99tons/hectare or 159.0bu/acre
Disking + Strip-Till corn: 9.69tons/hectare or 154.1bu/acre

The above figures are from a limited irrigation project and shows that No-Till as done there was a little better in yield compared to strip-till and conventional tillage systems approach.

Then, in a different study near Ermelo, ZA the following results were obtained.

So for many of the growers in South Africa JWL and we at Orthman, we work with are both cattle producers and grain farmers. Their grain and crop aftermath is very important to gain kilograms of beef. Using strip-till makes sense for the

grower who needs the grazing of the stalks, taking care of hoof compaction, getting a seedbed prepared and saving soil moisture and time in the spring. Their conditions are so much alike what happens in portions of the Western Corn Belt, it is uncanny.

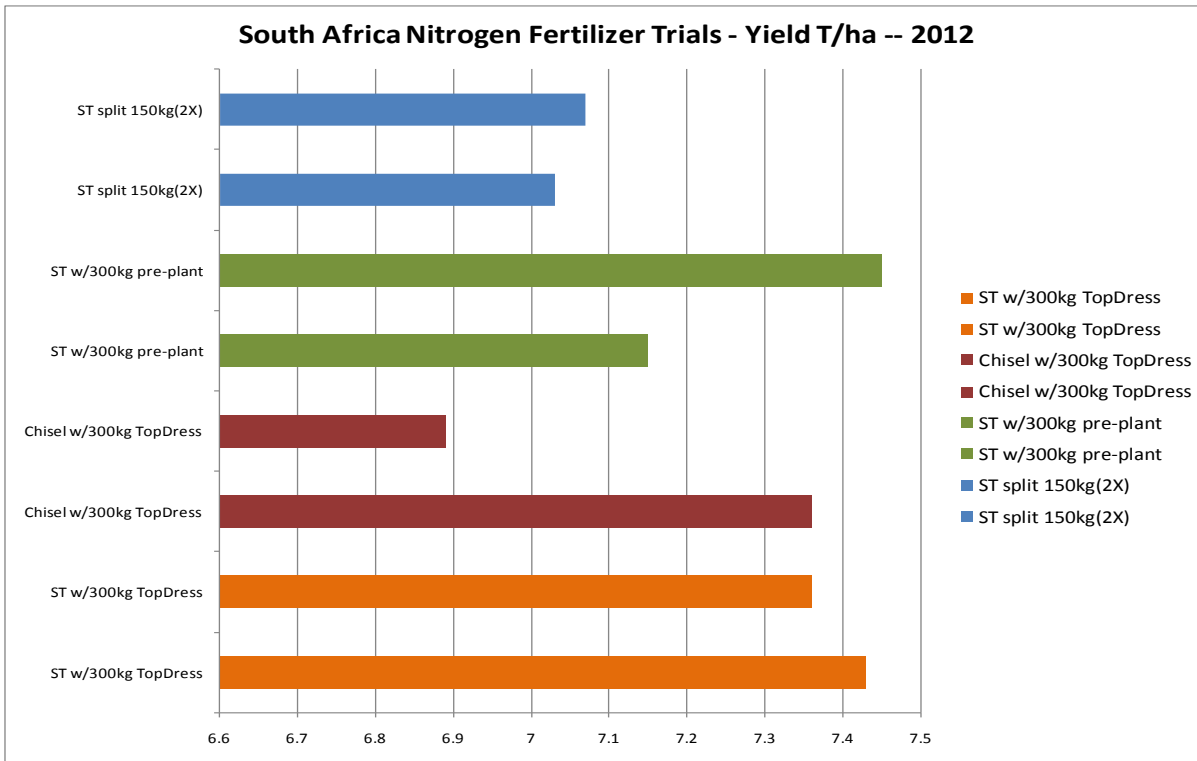


Figure 1. Chart depicts yield differences in the dry year of 2012 tillage differences and fertility treatments
 Note: (300kg/ha application is approximately 270lbs/acre)

Discussion of these results:

We feel it is important for USA growers and growers internationally to have access to the newer technology to be more proficient and sustainable. We at Orthman are working around the world to offer some of the very best technology and equipment to growers. This study and our studies in the nation of Hungary are yielding great first year results that demonstrate this conservation tillage method is key in farming wiser and with more profit.

The data from this one seasons set of natural rainfed condition trials near Ermelo, ZA indicates that strip-tillage and good fertilizer management with the unit pre-plant is giving in a dry year a super start and allowed the corn crop to finish well too [see figure 1.]. For instance; the graphic shows when we average the two chisel treatments and top dress fertilization to be 7.1 tonnes per hectare (113bu/ac) compared to the averaging of the strip-till operation and top dressing to be 7.4tonnes/hectare (119bu/ac) in 2012. When we checked with the fuel savings and labor savings, the savings is even greater. So we know that yields are very comparable if not better, however the cost benefits with strip-tillage raise the bar and outcome in South African currency more. We see this repeated in the United States many times over.

The good folks in Mpumalanga Province in the region of eastern South Africa in the Highveld area are continuing this year in 2013 as we are seeing temperatures far below 20°F (-7°C.) for the daytime high here in the States. We will report to you with their results when harvest data is provided.