More Reasons to Use Residuce™

10/14/2013

Several weeks ago we reported on some **Residuce™** strips that were noteworthy. A few weeks after application last fall, a visual difference appeared in the strips. This spring we ran many different tests in an effort to generate numerical values and quantify the differences.

This week we will share the data on compaction, surface residue, and weight of the residue. On June 19th we divided the strip plots into 8 subplots; 4 treated and 4 untreated. Our data is an average of the respective subplots.

Compaction: Penetrometer Readings

We found significant differences in the upper 6 inches and looser soil down to 24 inches. Remember, the penetrometer measures resistance, so we want to see lower numbers indicating less compacted soil.

Depth in Inches	Penetrometer Readings in Pounds per Square Inch	
	Untreated	Treated
3	164	113
6	195	142
9	180	156
12	148	131
15	159	144
18	173	162
21	189	174
24	196	184

Surface Cover: The "Rope Test"

If you have dealt with highly erodible land you are likely familiar with this technique. On highly erodible land we must have a set amount of cover after planting. A 100-foot rope with a piece of tape every 12 inches is laid across the soil. If the tape is in contact with residue it is used to calculate cover.

Untreated areas averaged 83.2% cover.

Fall **Residuce™** treated areas averaged 70.2% cover.

Remaining Residue: "Harvest" the Pieces

Yes, this took some effort. We picked up all the residue in a 3-by-3 foot area in each subplot, placed it in trash bags and sent it to the lab. The lab took a wet weight as well as a dried set of weights. The results were impressive. Dry weights:

Untreated: 482.76 grams

Treated with **Residuce™**: 270.76 grams – A reduction of 44%

We find the large reduction in weight, but modest reduction in ground cover, very interesting and consistent with years of observation. When cornstalks are being "attacked" they will change from a golden color to grayish. They will become quite brittle and the pith will be consumed. Even though the ground has significant cover, when we till or plant through the cover the stalks in this condition break or explode on impact. The result of this decay is that the stalks won't bunch, wrap, or plug machinery.

We have had concerns with degrading stalks too rapidly on highly erodible ground. As this study points out, we can maintain good cover and still greatly accelerate and reduce pounds/tons of residue into active carbon.

Talk to your AgriEnergy Resources representative about adding Residuce™ to your Residue Management plan. If you would like to put out some test strips to "see for yourself", we would be happy to help you design the plot(s) and to help you decide what data to collect.