



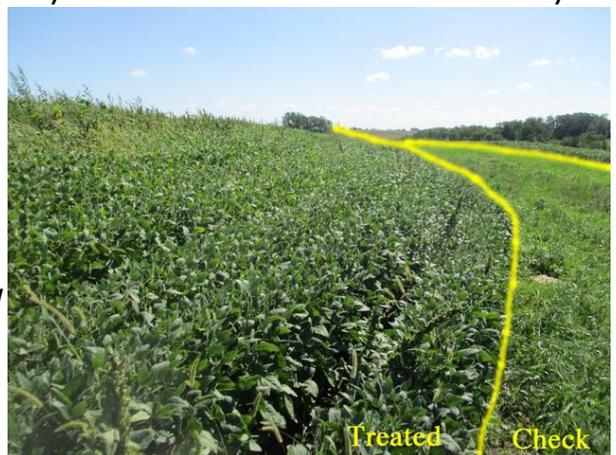
The Power of Soil Tilth

5/20/2019

A significant portion of the Midwest and Eastern United States is faced with a similar dilemma - too much rainfall. Much of that acreage may remain unplanted, thousands more acres will get mudded in. Farmers fully recognize the yield penalties they will incur from planting into wet soils and are asking, "what to do now?"

One answer is to surface apply, immediately after planting, a soil reconditioning package. But first, let's examine the damage caused when we have excess precipitation. Soil structure is compacted, oxygen content is minimal, beneficial soil biology crashes hard, and nutrients leach. This situation is a very poor environment for plant growth. It's the very situation where one commonly sees corn roots that are hatchet shaped - roots unable to penetrate sidewall compaction caused by openers run in wet ground.

The good news is, we can still positively effect soil structure and restore yield potential! This picture from Iowa shows how we can do that. There was virtually no oxygen present because of prolonged saturation, along with poor tilth. We immediately took action to "shock the soil."



The grower spring applied 1,000 pounds of gypsum and 1,000 pounds of humified compost per acre. We left one 40-foot pass without those inputs (check), and a 40-foot pass (treated) got a double rate of gypsum and compost.

The results were spectacular. While only 5% of the soybeans emerged on the untreated strip, 80% emerged on the treated areas. The 95% that did not emerge in the check failed to germinate. But, our most spectacular discovery was how quickly a combined application of calcium, carbon, and beneficial soil biology creates tilth, especially in warm soils with adequate moisture.

We first made this observation after broadcasting **PractiCal** and **SP-1™** on compacted hay fields. We even coined the term "flash flocculation" to explain what we were seeing. Where these products were applied, the ground quickly became more mellow. That effect lasted all season. What we've learned more recently is that flocculation is a prerequisite to aggregation, and a well aggregated soil is tilthy, healthy, and productive.

How does that apply to 2019 corn? It applies for corn that was unavoidably planted into wet ground, especially on ground high in clay. To get specific, **we recommend a band or broadcast application of 3-5 gal/acre PractiCal (calcium with carbon) plus 3-5 gal/acre MT17 (biological soil conditioner) sprayed on top of the corn rows.** This application can undo a lot of the damage previously done and restore a big chunk of your original yield potential. These products should be sprayed as soon as possible after planting, even if the corn has emerged.

If you are concerned that the 2019 planting conditions have taken 50 bushels or more off your yield, call AgriEnergy today and ask about **PractiCal** and **MT17. 815.872.1190.**