Welcome to Ground Work

*Through our **Residuce™** series this month we have been sharing the benefits of managing and utilizing crop residues. Hopefully you're already convinced that tons of crop residues represent tons of opportunities to build organic matter/humus/"real fertility" into your soil. This week we'll discuss another timely benefit … the **use of Residuce™ for bio-sanitation in Integrated Pest Management Systems**. Specifically those programs that address disease.*

Sanitation, the physical removal of infected tissues, is a standard practice for growers who fight diseases such as Apple Scab, Pecan Blight, or Cherry Leaf Spot. Orchardists take great care each season to remove as much of the leaf litter in the fall as they possibly can. They need to minimize the amount of inoculum on the orchard floors that threaten the next crop.

It's not as common to talk about sanitation in row crops. But with a "Goss's Wilt epidemic" sweeping across the Midwest, universities and consultants are once again talking about it. Historically this was taken to mean one should get out there and moldboard plow their trash; and that works. But NRCS and

others have persuaded or coerced many growers to stop that practice. Indeed we at AgriEnergy do not think complete inversion of residues is justified.

So what do we do in corn-on-corn where Goss's Wilt, or Gray Leaf Spot, or the like is present on our residues and a threat to next year's crop? Rotate out? Ok, maybe in corn ground, but that's a hard choice when corn is more profitable than beans. With perennial crops such as an orchard, rotation is not an option. So what can we do? We engage in active and vigorous residue decomposition.

An ARS microbiologist once stated that the fungal inoculum on fallen and dead tissues will not survive if the infected tissue is consumed by microorganisms. Thus ***bio sanitation is the practice of using microorganisms to eat residues as quickly as possible*.** And not just relying on and waiting on the native organisms to get cranked up, but actually spraying these bugs onto the residues and getting those residues into contact with the soil. Your soil may or may not have a diverse supply of decomposers. The application of **Residuce™** supplies those organisms where they are absent. **Residuce™** accelerates the natural cycle by thoroughly spreading decomposers across leaves and crop residues. Accelerating this cycle even a couple weeks is quite important when winter is near.

Most definitely you should continue all good sanitation practices. It is impossible to get every little scrap of fallen plant material picked up in an orchard or buried deep in a field. But it is not impossible to inoculate every bit of what is on the orchard floor or in your fields with **Residuce™**.

Residuce™ Plus Powder is live microorganisms. **Residuce™ Plus Liquid** is a support package to get those bugs up and running. Think of it as sending your decomposers off to work with a cup of coffee and a good breakfast. If you have infected residues to chew up they need a good breakfast. They have a big job to do.