

Column Name- The Heartland Minute

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“Mustard- good for farmers and grill masters alike”

Double wins don't happen often. Generally, there is always a winner and unfortunately a loser. So when the rarity of a double win takes place, we need to appreciate it! So what on earth does a “double win” have to do with mustard, and how does it relate to agriculture? Good question!

Recent research done by Kansas State University is receiving national recognition for a study showing that planting a mustard cover crop helps to improve soil health and, ultimately, boosts soybean yields. I would consider that a “double win”!

The study was recently published in the report “Retaking the Field: Science breakthroughs for Thriving Farms and a Healthier Nation”. The research team down at the Southeast Research-Extension Center in Parsons conducted the study. Farmers in southeast Kansas know all too well that the soil in their region contains an abnormally high amount of charcoal rot, a fungus that chokes the plant's recycling system so that it cannot get nutrients or water, ultimately killing its roots. Charcoal rot generally gets worse in our hot, dry Kansas summers, and that's when the majority of farmers see the infection in soybean plants. While there are chemical treatments for charcoal rot, researchers were working to find a natural agent to counter the effects of the fungus.

The mustard plant has a high glucosinolate concentration. Glucosinolate is the ‘tang’ that we like in mustard, but in soil, the glucosinolate produced in the mustard plant acts as a bio-control of the charcoal rot fungus. Over two growing seasons, the K-State researchers showed that planting mustard seed as a cover crop reduces the incidence of charcoal rot in the soil.

The researchers also tested various management options, including planting soybeans into standing mustard seed; mowing it; or tilling it to incorporate residue into the field. Their key finding was to leave the mustard crop as intact as possible. Research will continue to see how mustard affects yields due to sudden death syndrome and soybean nematodes.

So in conclusion, mustard is not only good for grill time! It's also a way for our farmer to have a more holistic approach to soil health while still getting more bushels per acre. Research is showing that by planting mustard as a cover crop is a great option to help control charcoal rot in soybeans and is showing to boost soybean yields as well, which is a double win for producers!

For more information regarding Agriculture and Natural Resources, 4-H Youth Development, or K-State Research and Extension call the office at 620-583-7455, email me, Lindsay Shorter, at lindsayshorter@ksu.edu, or stop by the office which is located inside the courthouse. Be sure to follow K-State Research and Extension- Greenwood County on Facebook for the most up-to-date information on Extension education programs and the Greenwood County 4-H program.