

Conservation Agronomy & Variable Rate Technology: Increasing ROI on each acre is good for the environment, too.

In 2017, Gary Van Horn left his job as a secondary education teacher and began farming full-time alongside his father Gene Van Horn and brother Greg Van Horn in Eastern Kansas. What's different about Van Horn Land & Cattle LLC, however, isn't Gary's background, but rather how they are working to maximize productivity on their land using conservation agronomy.



Gary's father Gene has sat on their local Soil and Water Conservation District board for years, so the idea of conservation agronomy isn't new to Gary, it just looks a little different. "For my dad, conservation looks like terraces, grass waterways and contour farming. I'm looking more into new technologies. Let's try cover crops to keep the soil where it belongs or let's use variable rate application of nutrients to keep from overapplication or run-off."

Curbing overapplication of nutrients and reducing run-off is at the top of the list for Gary- especially because this component is most impactful to his bottom line. What he found was that through using cover crops, 100% no-till and variable rate technology (VRT) to seed and apply N, P and K, this reduction was now happening in his own fields. Additionally, grazing cover crops brings the additional benefit of manure to his fields. Going beyond manure from grazing and exploring the use of manure as opposed to commercial fertilizer is a new area Gary says they are bringing to their farm. Gary is open to seeking opportunities to bring additional incentive to his family farm.



What Gary also found was that while profitability was the main goal, conservation of the land was a nice bonus. “On poor ground, nitrogen isn’t going to stay there, it will end up in the water. Finance drives all decisions but with VRT, you also have the other environmental benefits too, like increased water quality.”

Out of all the technologies they have implemented, utilizing soil samples to create management zones, and feed each acre differently has helped them realize the most benefits. “Parts of the field that you know are going to produce should be treated differently than the parts of the field that no matter what you do, you’re not going to get much out of them,” Gary says. “What been great about the variable rate technology isn’t necessarily about reducing variability in a field but lowering my input cost on poor dirt and putting on better dirt, it’s about seeing a better ROI on each acre.” Technology continues to have a big impact in the agriculture industry and Gary sees the value in investing in technology.