Greg Woll has found what he believes is a better way to farm and he has no intention of going back.

Sitting in the passenger seat driving down a country road near where he farms in Whitley County, Indiana, a mix of anger and disappointment fills his voice as he points to the road in front of him and calls for the car to stop.

It is a dreary day in mid-July, about halfway through the growing season, and 6-foot tall corn stalks stand guard on either side of the road. It is not those that have caught Woll’s attention, though. A steady rain has been falling all day, on top of the few inches that had already fallen throughout the week, and it is wreaking havoc on the corn field that borders the right side of the road.

Mud and water are sloughing off the field creating a mini river of sludge covering half the road. It is a scene Woll is familiar with and one that used to plague his own fields, until three years ago when he overhauled his farming practices with an eye toward soil health thus stopping issues just such as this one.

“This is what we’re trying to correct,” Woll said, pointing to the lost soil as the car switches lanes to avoid it.

Woll, along with his brother Jeff and son Daniel, farm 2,000 acres near Columbia City, Indiana. Like any farmer, soil is the lifeblood of their operation, and with a plan already in place for Daniel to eventually take over Woll Family Farms, Greg Woll cannot afford for his soil to be sitting in the road instead of on his field.

The Woll brothers have been working and investing in the land they call home for more than 30 years and are passionate about protecting it for the future.

They got their first taste of farming in high school by helping their uncle with harvest chores. Jeff was the first to make the jump into running his own farm. In 1978, just after high school graduation he acquired 50 acres in Columbia City where he farmed with equipment borrowed from his uncle. After graduating from Purdue University with a degree in agriculture economics Greg joined him and they continued growing the operation for the next four
decades. They lease the majority of the 2,000 acres they farm with the land split almost 50-50 between corn and soybeans each year. The bean acres have been no tilled since the mid-90s, but up until two years ago only portions of the annual corn crop were planted without conventional tillage. Included in the no till corn acres was the land Greg and Jeff had helped their uncle farm all those years ago as their introduction to farming. Their uncle was ahead of the curve and had adopted no-till farming and cover crops long before it was widespread. Woll can even remember long days in the field helping his uncle terminate cover crops with a homemade roller crimper made out of a 6-foot railroad tie they dragged across 100 acres of farmland prior to planting.

Four decades later, the technology has changed drastically, but the general principles haven’t — keep living cover on your fields year-round and disturb the soil as little as possible. It wasn’t until the spring of 2019, though, that Woll decided it was time to make the change for good and now, into his second growing season of 100% no-till farming, he says he is never going back. In May 2019, it simply would not stop raining to enable the Wolls to plant. Observers from the Community Collaborative Rain, Hail and Snow Network reported rain on 22 of the 31 days in Whitley County that month with trace amounts of rain on two of the remaining days. Rain is good for crops, but dry fields are important for planting. The persistent rainfall meant the Wolls and other farmers in their county couldn’t plant until the first week of June, more than half a month after the usual plant by date.

As he prepared to plant, Woll figured land that was conventionally tilled would have an advantage as running the tiller through the land before planting opens up the surface and allows it to dry. For some of his acres, Woll was able to do just that. But on 600 of the nearly 1,000 acres he planned to plant corn on, there was a 4-foot tall stand of cereal rye he had been unable to terminate in April. As the rain fell throughout the month, the rye had continued to grow, undeterred.

Usure how to proceed, and with his county declared a disaster by USDA’s Farm Service Agency because of the expected crop loss, Woll made frequent calls to Jeremy Palmer, the local district conservationist for USDA’s Natural Resources Conservation Service (NRCS). Through multiple calls a week, the pair worked together to craft a plan for how Woll should plant his crop. In the end, they decided the best approach was to plant green directly into the living cover crop, and then terminate the rye after the seeds were in the ground.

“The worry was that (the ground under) the cereal rye wouldn’t dry out to the point where it would accept the seed and help the seed get sprouted,” Woll said. “Well, in fact, it was the exact opposite. I made this call to another no-tiller friend of mine and said, ‘The soil is perfect. It is June 1 or 2 and the soil is perfect. So, what’s the deal here? Why is everybody worried about wet ground underneath this cereal rye?’”

As the rain fell throughout May, the rye he had left growing in his field protected the soil. The living roots soaked up the water, nourishing the rye plants and giving Woll a perfect landscape to plant his corn without having to disturb the soil or make multiple passes with different equipment.

Despite the late start to planting, when it came time to harvest, Woll’s corn produced yields equal to, and in some cases exceeding, the averages for his field. The experience made a full believer out of him and he began working with the NRCS to covert his remaining acres to a 100% no-till operation with cover crops planted after soybeans in preparation for the corn to be planted a few months later.

After making the decision, Woll did not even want to be tempted to switch back to conventional tillage. So, in Feb. 2020 he loaded up all of his tillage equipment and took it to auction. It was a
strange sight in his neck of the woods, a farmer unloading all
his tillage equipment, so the auctioneer had to put the buyers
at ease that nothing was wrong with the equipment.

“You know what the auctioneer said, ‘The reason he’s selling is
because he’s going to no-till,’” Palmer said. “For somebody to
say that in a county like this and somebody to do that, well, it’s
pretty big.”

With his old equipment sold, Woll started the process of
transitioning his farm to conservation farming techniques with
the help of Palmer and Indiana NRCS. Woll originally enrolled
305 of his acres in cover crops through an Environmental
Quality Incentives Program (EQIP) contract in 2017, which
covered about half of his corn acres each year. After the 2019
growing season, he enrolled in an additional EQIP contract to
plant cover crops on all 600-plus acres where corn would be
planted after soybeans. A third EQIP contract also helped him
make the transition from partial no-till to 100% no-till on all
2,000 acres.

The switch from conventional tillage to no-till farming is
expensive because it required him to switch over his planter
and also apply nutrients differently, which he said would not
have been possible without the assistance from NRCS.

To further help his farm, Woll enrolled in the Conservation
Stewardship Program (CSP), which helps farmers to enhance
conservation practices already in place on their land. CSP
helped Woll implement precision farming techniques on his
operation, reducing the risk of nutrient losses and pesticides
impacting nearby surface water. The auto-guidance helps
Woll to spray nutrients onto his crops within an inch of their
intended location and reduces waste by eliminating duplicate
application. As he sprays, the real-time kinematic (RTK) system
tracks which areas have already by covered and will auto
shutoff if they are passed over more than once.

Woll first only used RTK on his corn planter before adding it to
his soybean planter upon Palmer’s recommendation. On his
15-inch bean planter, Woll uses the RTK system to plant both
soybeans and cereal rye. He was previously planting the cereal
rye with a broadcast spreader and drill, which reduced the
precision and caused problems when he came behind with the
30-inch corn planter. Now, the rye is planted in clean rows and
out of the way of the incoming corn seeds, which keeps residue
from wrapping around the row cleaners on the planter as he
plants green into the living rye. This also aids when he makes
his nitrogen side-dress pass, because the rye doesn’t plug the
applicator. He uses a similar process when planting soybeans,
planting the seeds between the corn rows, which avoids the
corn stalks from the previous season.

Under CSP, Woll has also agreed to not apply fertilizer to his
land more than 30 days prior to his typical planting date. This
ensures there are plants ready to absorb the nutrients soon
after the fertilizer is applied instead of it sitting on the ground
all winter and potentially running off with rain or snow melt. In
Woll’s case, that would mean the excess nutrients draining into
the Eel River, which joins the Wabash River and eventually the
Gulf of Mexico via the Mississippi River, helping to cause the
gulf’s dead zone.

Into his second planting season using full no-till and cover
crops prior to corn rotation, Woll has already seen yield
increases, putting to bed the idea that transitioning from
conventional tillage to conservation farming can cause a drag
on yields.

“The rule of thumb is there’s a five year drag on yield for guys
who switched from conventional to no-till,” Woll said. “It takes
five years for your ground to get adapted to the change. So,
enoough organic matter, no compaction issues and to build up
your soil. I’m not finding that in my yield. This is my second
year of 100% on corn and my yields will stand right up to my
neighbor who’s doing conventional tillage.”

As he finishes giving the nearly two-hour tour of the county
he calls home, the rain continues to fall and Woll can’t stop
brooding on the wash out he had seen earlier and the damage
it causes. Since switching to no-till the dust on his land has
disappeared during planting, keeping soil and water where
it should be, and his fields can stand up to even heavy rains
without washing out.

Woll Family farm has grown exponentially over the years, but
with these new practices in place and his son set to take over
in a few years, Woll has a simple goal he hopes to accomplish.

“I don’t want to farm more ground, I want to farm what I do
have better,” Woll said. “I wouldn’t do this, if the benefits
at the end of the road, or during the whole process isn’t to
improve the soil.”