

It's About The Residue

Two, three and four decades ago, most farmers took great pride and pleasure in looking across their recently planted fields and seeing green seedlings emerging against a backdrop of black soil. That looked beautiful then. Still does.

Today, some farmers look across their land and see residue cover. That looks beautiful too.

The benefits of residue can far exceed the way the field looks. In case you don't know, residue cover is developed without tillage across today's Kansas countryside.

This buildup of soil structure with the remains of crop field stubble and other residue can be a farmer's best friend. Uniformity is the key to a successful no-till farming system.

When producers think of uniformity, they should think of it every day of the year. When they look at their fields they should see uniformly spread residue, uniform soil conditions and uniform soil moisture.

This same uniformity is something producers must work at continually over the long haul. Members of the Thompson Farm & Ranch in Norton County understand this concept. Richard and sons, Michael, and Brian, represent the fifth and sixth generations to farm in northwestern Kansas.

On their family farming operation, they focus on their most important resource — the soil. They know their livelihood is dependent upon it being healthy and productive. They believe their soil not only needs to be conserved, but rejuvenated with best management practices such as rotational grazing, cover crops and no-till.

The Thompsons have been continuously no-tilling since 2000 when they gave up conventional tillage.

"The most difficult time for those beginning no-till occurs during the first three to five years," Michael says. "That's when anything and everything that can go wrong, will go wrong. Believe me, I know. We've experienced it."

Producers tend to blame these problems on no-till without realizing it is something in their system.

"That's why you need a friend or another producer who has been successful at no-till to share his (or her) experience with you," he says. "You can't afford to make all the mistakes by yourself."

The Thompsons understand a producer cannot go back to conventional tillage to

level residue. Level residue begins at harvest time with uniform distribution of straw and chaff. If a producer has clumps, piles and bunches of the residue from a crop, the next implement that goes through the field will plug up.

Cover crops have also helped the family reduce the number of chemical applications applied in a season and the need for pesticides.

“The residue of cover crops provides an armor for the soil by buffering the impact of rain and creating a protective layer to reduce weed pressure,” Michael says. “They also create habitat for wildlife, pollinators and beneficial insects.”

So often producers worry about how much rain they receive.

“We like to keep, and use, the moisture where it falls,” Michael says. “That’s where cover crops and residue are critical.”

The use of cover crops has also helped provide their cattle operation with supplemental grazing. The Thompson family uses high-stock density grazing with daily moves. While cattle are grazing cover crops it allows their native range much needed rest and recovery, allowing more grass to be grown on their range acres.

The family continues to add windbreaks, and have begun work on a more permanent water facility for their cattle.

While it’s hard to figure exactly how much extra moisture the Thompsons gain with the use of their no-till program, it may be the equivalent to five extra days of moisture each year.

Regardless, the use of continuous no-till farming makes their system work and causes buildup of the soil structure.

The Thompsons label no-till in conjunction with cover crops a win-win situation. That includes their cropping and livestock operation.

John Schlageck is a leading commentator on agriculture and rural Kansas. Born and raised on a diversified farm in northwestern Kansas, his writing reflects a lifetime of experience, knowledge and passion.