

# A Better Understanding

by Keith Thompson

Making no-till work properly has never been obvious—certainly not for the world's pioneers of the practice, and not for those who are first in an area to apply the principles to their local conditions. Even with a “brain transplant” for no-till, sometimes things like crop rotations, fertilizer application, and seeder functionality take awhile to decipher. For the poorly drained, high-clay soils of east-central Kansas—regarded by many experts as not suitable for no-till practices—the deciphering took a bit longer.

That's exactly what faced Chad Filbrun and his dad, Dwayne, who farm near Westphalia, KS (halfway between Ottawa and Chanute). They'd experimented with some no-till planted crops for many years in the '90s—doing min-till or ‘skip-a-till’ on the majority of their acres during that decade—before eliminating full-width tillage in '98. Since 2000, the Filbruns have used only true no-till practices. While some of the academics have concluded that no-till is impossible on those soils (Kenoma, Woodson), this ‘fact’ didn't deter the Filbruns in the least (or perhaps they were totally oblivious to the professional verdict on no-till for their area), and they appear to be migrating toward a successful system now. Not that the Filbruns are the least bit interested in slowing down the search for further improvements.



While the Filbruns won't claim to have invented much of anything at all, they have indeed successfully sorted out much of the grain from the chaff when it comes to making true no-till work in their conditions. They've either survived or dodged many of the untruths, half-truths, propaganda, fads, and other distractions that seem to dog the move to better cropping systems. They're a bit ahead of the pack in this regard, whether by dint of asking the right questions, skill at problem-solving, or just being lucky.

Like many who start down the no-till track, at first the Filbruns simply took out the tillage and didn't change

much else—with rather predictable results. Luckily, they fixed the biggest deficits fairly quickly.

Filbruns' rotation prior to no-till was essentially a crop split of about 2/3 soybeans with 1/6 corn and 1/6 wheat. “We're probably still paying the price for some of that today. We did a lot of damage to the soil,” says Chad, referring to the mining of soil organic matter (OM) and erosion. No-till has allowed the Filbruns to increase the portion of wheat and corn in the rotation, while adding double-crops. “Wheat always goes in after soybean, then double-crop to soybeans after wheat, then to corn.” After that, it gets more varied, usually with full-season soybeans following the corn. Sometimes another corn >>soy cycle follows that, stretching it out to a 5-year rotation. Occasionally corn is stacked, but not soybeans. “Rotations are what we're fiddling with right now. We don't have it all figured out.” Chad's interested in doing more stacked corn, but frustrated by some aspects of corn following wheat/dc soy. (More on that later.)

The scheme for fertilizing needed an overhaul, too, so back in '98 the Filbruns bought into what was being pushed: a DMI strip-till rig. Touted as solving all those fertilizer placement issues, and various other seedbed problems of min-till or no-till, Filbruns soon had some experiences of their own. They gave strip-till a serious effort, and try as they might, strip-till ended up costing them money. Whatever was supposed to happen when strip-tilling, Filbruns found that if the soil was a little too wet, big clods would be brought to the surface that never

**On 2 years of strip-till:  
“We were fighting  
a losing battle.”**



Filbruns' double-crop soys thrive in heavy wheat stubble.

Photo by Keith Thompson.