Smooth Operator

by Roger Long

Anyone who talks farming in-depth with Tom Pauly, Conway Springs, KS, realizes that it's economics that steers his boat, that more bushels produced at lower costs is what makes the best business sense, and no-till is the means to the end. Thirty miles southwest of Wichita, he's a resident of the juggernaut of wheat production, Sumner County—which, in acres, eclipsed the next largest county in the "wheat basket" state by 50% in '09, and is more often than not the top county in KS in bushels produced.

But with 30-year-average precipitation of over 32 inches, Tom knows there's great potential for more than just wheat: "I don't like to see water run off the farm. I want to capture every bit that falls. On average, we get plenty of rain through the year but it generally doesn't come very timely." Tom also knows that along with improved rain capture in his fields, he both could and should pull more water from the soil with grain crops—and, lately, with cover crops too. Wise observations from a seasoned no-tiller, but he wasn't always an avid proponent of low soil disturbance.

Nudged into no-tilling in '99, Tom was feeling the labor crunch of needing to get fields planted, but not having his sons around any longer to work the ground. He started no-tilling one field out of necessity, and over a six-year period, eventually converted to 100% no-till. In drier regions, growers switch to no-till to conserve moisture, but the catalyst that took this no-tiller from dipping his toes into the water to full immersion was the rainfall before and during planting season: "Too many times, in between finishing a field with a field cultivator and planting, rains would come and the field would need to be re-worked." Already short on manpower, the immediate need for labor-saving techniques was looming. Pauly was slowly converting to no-till, still doing some tillage where time allowed, when a real "toad strangler" rain came in the fall. By this time, he had direct comparisons in his own fields to study and it soon became quite obvious that no-till wasn't just a labor-saver, but a soil-, nutrient-, and moisture-saver as well.

If those humbling experiences weren't enough, Tom embarked on the No-till on the Plains' Points North Tour about then, which peeled back more layers of the proverbial onion. "I went because I wanted to learn how to grow no-till continuous wheat." The Tour gives growers a multi-day portal into no-till agriculture, visiting the farms of experienced no-tillers who have succeeded through their own innovation, and to a great extent being a disciple of Dwayne Beck. But Tom *didn't* learn how to grow continuous wheat. What he did learn—surprise—"You don't *have* to grow that much wheat." Tom now concedes, "I've made more money off of soybeans than anything else the last several years."

Still No Panacea

While proud of his progress, Pauly has no illusions of an 'arrival' or that all problems have been solved. Instead, all his faculties are focused on sound agronomic no-till principles. Possibly a result of his measured pace of no-till conversion, Tom enjoyed the process of his trek, "I would tell anyone: Get started quickly, but go with some caution." Tom is a great student of no-till experts and his own operation alike. Ever cognizant of residue levels in his fields, Tom would like to see more. Enter the realm of cover crops. His rotations of grain crops were already 'maxed out,' typically with a pattern of: wheat/ dc beans (or dc corn, milo) >>corn >>beans. (On his extremely sandy soils, he omits the single-crop soybeans—he drills wheat directly into corn stalks.)

Photo by Roger Long.

On bottomland soil, Tom's thatch is brushed away to reveal a crumb structure and abundant, healthy roots from his early-planted corn. (The corn leaf is senescing from severe drought.)