

An Inquisitive Nature

by Matt Hagny

The wheels were falling off. That's the uneasy feeling James & Richard Wuerflein ("WUHR-fline") had in the '80s and early '90s concerning their 100% wheat and stocker operation north and west of Enid, OK. Of course, it was maximum tillage. They had been relatively successful, no doubt, and had some late-model machinery as tentative evidence of this. But the factory itself wasn't behaving like it should—the soil didn't take in moisture very well, stand failures were common, salt spots slowly crept across the field, and elsewhere large areas of wheat had no grain-fill.

The Wuerflein brothers, who own farm assets individually but work together, have always had their senses attuned to research, and try to think about what their surroundings are telling them—whether it's the behavior of the soils, the weed spectrum, or what the markets indicate is valuable or not.

Wuerfleins, who today have some crop diversity and zero stockers, began their no-till journey in a rather unusual way—by doing more tillage. In the early '90s, in an attempt to improve water infiltration, they deep ripped nearly every field over the course of a couple years, and some fields twice. They noticed it wasn't helping drainage or soil condition at all. Could conventional wisdom be wrong? Then James had an experience that "impressed me to the hilt"—the K-State rainfall simulator at a field day in the Oklahoma panhandle in '95:



"They pumped till they ran out of water, and it still didn't run off the [high-residue] no-till." Having seen a JD 750 drill at that field day, James went home and ordered one—the first in their part of the world—and double-cropped a bunch of milo after wheat harvest.

That went okay, but what really convinced Wuerfleins of the need to change was their experience with two fields, as James describes: "Every year, we'd have 50-bushel-per-acre straw, but the heads were blank. We tested it for micronutrients, everything. Finally [attributed] it to root disease. We rotated out, and the wheat was fine [after that]." With these revelations—that no-till was both useful and feasible, and that crop rotation solved problems that technology was powerless to overcome—the Wuerfleins kept adding fields to their new scheme.

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Finally, Wuerfleins had enough evidence that no-till would work: "Diseases went away, and the yields were there." As Richard tells it, "We said to ourselves, 'Why have tillage equipment for 3,000 acres and only be tilling 1,000?' We had too much overhead." So by 2001, they were 100% no-till and sold all their tillage equipment. Richard adds, "We did keep one chisel to fill in combine ruts, but since we went to no-till, we haven't had any."



Photo by Matt Hagny

Wuerfleins' wheat after milo. While not the greatest crop sequence, the plant health is much better than continuous wheat in the area.

"Between rotations and no-till, we started seeing some responses to our problems. We broke the disease cycle. We started infiltrating the water," Richard explains. "For instance, the field across the road was half salt spots. Now the salt spots are shrinking. [Previously] nothing grew in those salt areas—the soil was cement. We don't grow huge crops in those spots now, but at least the plants survive and make grain. And it's getting better every year."

Gainful Procedures

Wuerfleins' rotation essentially has been wheat >>wheat/dc milo >>milo, growing four crops