



UT Extension And No-Till Farming Transformed Tennessee

JACKSON, TENN.

As Tennessee farmers gear up for planting season, tilling the ground is a preparation step that many producers have eliminated. "We haven't plowed a field in 30 years," says Madison County farmer Burruss Nichols.

Nichols grows nearly 500 acres of grain crops in northeast Madison County. Since the 1970s he's used a farming technique known as no-till farming, where fields are not plowed between harvest and the next planting, and the seed is basically inserted into the ground. For Nichols the adaptation was all about efficiency. He runs his entire farm with only one employee.

"I couldn't do that without no-till," he says. "It

1960s. He worked with agents who often used his farm as an example of how no-till production worked.

"People said that sure did look like a mess," Simmons says with a grin as he recalls the first time neighboring farmers saw his no-till plantings, "but later they were wishing they had corn like that."

"It took everybody promoting no-till," says Goddard.

Perhaps the biggest promotion for no-till, both then and now, is the Milan No-Till Field Day, held every other year at the UT AgResearch and Education Center at Milan. The first field day was in 1981, and soon after, no-till acres in



saves time and is so much more efficient."

Nichols' story is not unique. According to the National Agricultural Statistics Service more than 70 percent of Tennessee farmers use no-till practices, making it the conventional "tillage" method of the 21st century.

But while no-till may be considered the norm to many farmers today, that thinking would not have been possible without years of work from University of Tennessee Extension agents and specialists as well as scientists with UT AgResearch. This year, as UT Extension celebrates its 100th anniversary, many agents still consider the adaptation of no-till farming as one of the greatest accomplishments of the last century.

"It was just a tremendous step forward as far as agriculture is concerned," says Ken Goddard, UT Extension biofuels specialist and former Henry County extension agent.

Goddard recalls 1970, his first year to work with UT Extension, when soil erosion was ruining many farms in West Tennessee, which was one of the worst spots in the country for erosion.

"West Tennessee was used as a classic bad example," says UT AgResearch Professor Dr. Don Tyler. "Years of over-tilling had really taken its toll on the land, and it was hurting farm production."

At the time, the average rate of erosion for cropland in Tennessee was 40 tons of soil per acre per year. Despite the need for new farming methods, Tyler and Goddard both recall how the concept of no-till production was a tough sale.

"People grew up planting crops a certain way," says Goddard, "that's just what they knew. It was the method they were familiar with."

Hundreds of years of tradition made the promotion of the new technique difficult for UT Extension agents. But they kept at it, helped by early adapters, like Weakley County farmer Junior Simmons. Simmons started experimenting with forms of conservation tillage in the

Tennessee started to increase. This year the event takes place on July 22.

But UT Extension agents were dedicated to this technique much earlier. Retired Extension cotton specialist Dr. Paulus Shelby recalls writing his graduate thesis on the subject of no-till back in 1961, 20 years before the first field day.

"The adaptation of no-till was so gradual," Shelby recalls. "Like for any new idea, we heard, 'That will never work,' but I think the research we did is finally what sold everyone. Once equipment and seed technology caught up with the research, we saw no-till acres boom. But the research came first."

Nearly 50 years after writing his graduate thesis, Shelby along with other current and former Extension agents can see how their work has had a part in transforming Tennessee. The Volunteer State is considered a leader in no-till farming, and the benefits of its implementation range from a drastic increase in agricultural efficiency (the average farmer provides food and fiber for nearly 130 people compared to 25 in 1960) to cleaner air and water. The state's soil erosion levels have decreased by approximately 80 percent. It's no wonder that many agents are still so passionate about it.

"No-till just makes sense," says Goddard. "It's probably the most significant program that's been developed, with everyone playing a role."

When the 30th Milan No-Till Field Day rolls around this July, thousands of producers from across the region will flock to the UT AgResearch and Education Center at Milan. Almost all will be familiar with no-till, which is a testament to how the past work of UT Extension agents changed agriculture in Tennessee and across the region. But in July the specialists and agents on hand will be focused on the future, and how new research can help Tennessee farmers for the next 100 years.

More information about the 30th Milan No-Till Field Day, to be held July 22, 2010, can be found online at: <http://milan.tennessee.edu/>.

△