

By Jacqui Fatka



# Strip till cuts costs, boosts yields

**Tap into soil moisture, wider profit margins with root zone banding**

**R**ising fuel and fertilizer costs continue to strip profit potential from your bottom line. Now, hundreds of farmers across the country are fighting back by digging deeper into their soils and using fewer tractor passes to do it.

"Strip till is the first practice I've ever adopted that I can honestly say trims costs and boosts production," states Lynn Flaming.

Flaming, who farms 3,000 continuous corn acres near Elsie, Neb., was one of the first farmers to adopt strip till nearly 10 years ago. Each spring, Flaming mounts Orthman Manufacturing's 1-tRIPr to the planter and injects fertilizer 12 inches deep for a one-trip planting system.

## SQUEEZING COSTS

Orthman's four-year study across five states from Texas to South Dakota found conventional till requires anywhere from 6.5 to 12.5 gallons of diesel per acre. Meanwhile strip tillers burn only 1.9 to 2.5 gallons an acre. With diesel at \$2.65 to \$2.70 a gallon, that saves \$12.19 to \$25.60 an acre.

Leroy Scott does his root zone banding in the fall to prepare his soils for spring, injecting liquid fertilizer 6 to 8 inches deep on parts of his 2,000-

acre farm in Toledo, Ill. Normally, Scott would broadcast the nutrients and then go over the field with a cultivator. Now he saves on labor, fuel and machinery wear and tear.

"I pay Fritts Fertilizer \$14 per acre for root zone banding, but I was paying \$9.50 to hire the tillage before," Scott explains. "Before I was hiring them to do fall and spring tillage. You couldn't work your ground twice for under \$9.50."

Scott also boosts profits by qualifying for Environmental Quality Incentives Program funds. Mike Petersen, retired Natural Resources Conservation Service soil agronomist and current Orthman consultant, explains growers can capture an additional \$5 to \$10 an acre for using strip tillage as part of their management system. Unlike the Conservation Security Program, EQIP is available for farmers in every watershed, Petersen explains. He recommends contacting your local NRCS office to see if you qualify.

## CREATING AN IDEAL SEEDBED

Strip till is unique because it marries the best concepts of deep vertical tillage, fertilizer and residue management all into one trip across the

field, explains Flaming. Unlike no-till, which takes years to develop organic matter, he consistently sees a tenth of a percent rise in organic matter in his fields each year.

Petersen says strip-till growers see 30% to 50% better improvement in corn root systems. At Day 55 after emergence, strip-till root systems have over 10,000 more linear inches per root system than conventionally tilled plants.

"Placed in a string, that is approximately 830 feet more root system under one plant," he adds.

Especially in the High Plains where irrigation and continuous corn are the standards, root systems are crucial to boosting corn yields. Strip till allows the roots to gather water from deeper in the profile to sustain high yields, Petersen says, adding you cannot reach 300-bushel yields with 3-foot root zones. You can, however, with roots going 6 feet deep, which is easier to establish in strip-till soils.

Bonus savings come from cutting back nitrogen rates. Petersen works with growers who band fertilizer in the root zone. Many have settled at 0.7 of a pound of N per bushel of expected corn yield, compared to the recognized 1.3 standard. **ff**