

Iowa Agriculture

Strip till system provides unexpected soil gains



BY TOM BLOCK



SHOP & FIELD

didn't expect even though he had heard similar stories from other strip till users.

Trial and error

Making the change to a strip till system doesn't require huge up-front investments, but it does require an open mind, Thompson says. His approach to figuring out the best method for preparing strips on his farm boils down to trial-and-error.

"You can do strip till 300 ways," he points out. "I've done it four different ways, and I'm still trying to make it work for my situation."

He rented a strip till machine for the first couple of years before deciding to build his own unit in the third year. He ran that unit for three years before changing again.

"It was the cheapest strip till unit you could put together," he notes. "If you're just going to do corn into soybeans, you can use anything. Corn-on-corn creates more problems because of the heavy residue."

A key feature on his current unit is residue cleaners at the front of the machine, which helps clear a path to prepare the strips for fertilizer and seed placement. It's important to have a durable machine that can handle a wide range of conditions, notes Thompson, who shares equipment



Strip tilling creates a level seedbed while leaving greater amounts of corn residue on the surface to control erosion, explained Mark Thompson, center, to farmers at a field day earlier this month. PHOTO/TOM BLOCK

with two other farmers, covering about 2,800 acres each year.

"We ran it in beautiful conditions last spring," he recalls. "The year before we ran it in mud. It went through a lot."

In his first year, he prepared the strips and planted without the benefit of GPS-aided steering guidance. He has a GPS system now, but not with sub-inch accuracy.

Less fuel, fertilizer used

The move to a strip till system has reduced fuel usage to 2 gallons of fuel per acre to prepare the strips, plant, spray and harvest,

start, Thompson says. However, he notes, the slower start doesn't seem to hurt yields, and the environmental and economic benefits are clear.

In addition to fuel savings, Thompson sees less erosion and uses less fertilizer than previously. His nitrogen rate is about six-tenths of a pound per bushel of yield for corn-on-corn. For corn after soybeans, he uses less than 100 pounds of N per acre.

"Typically, that's because of the efficiency," he explains. "It doesn't have to go looking for the nitrogen. It's right there."

The placement of the fertilizer in the furrow also eliminates the need for starter fertilizer, he adds.

"When you plant the seed into the furrow, it hits the fertilizer," he says. "We've had excellent luck with that."

Switching to strip till also opens the door to participation in conservation programs, such as the Conservation Security Program, which helps pay for equipment costs, Thompson points out.

He has noticed better drainage due to improved soil structure, although wet years can still pose some problems. The corn stalk residue that remains in the fields through the winter tends to catch more snow and hold moisture in the field longer, he says.

But overall, Thompson, who is a farm management consultant, says his yields are on par with those of his clients.

"Our yields are just comparable with everybody else's. They're not better or worse," he says. "Wet weather affects us a lot worse. In dry weather, I think our yields will rise to the top."

Thompson reports, noting that about half of that fuel is used for combining.

He prefers to prepare the strips in the fall, but sometimes Mother Nature doesn't cooperate, such as with the late 2009 harvest. However, with nearly ideal conditions last spring, he was able to catch up.

One drawback, Thompson says, is that the strips do not warm up as fast as tilled ground in the spring, although they do warm somewhat faster than no-till ground.

Still, that can lead to a slow