

# 9 keys to strip-tillage success



By LONTONNESON

**A**ll across the Cornbelt, there's ample evidence that strip till can cut costs and produce yields equal to or greater than other tillage systems. Plus, the tillage delivers substantial conservation benefits.

But it takes more than just switching implements to succeed with strip till. Here are some important keys to strip-till success:

- Dig a root pit before strip tilling your first fields, advises Michael Petersen, precision tillage specialist with Orthman Mfg., Lexington, Neb. You need to find out where your compaction layers are and how deep you'll have to run a strip-till shank to break up the compaction. The amount of compaction you're facing will affect how much tractor horsepower you'll need. General recommendations are 25 to 30 hp per shank.

- Select the right strip-till implement for your soils, your farm, your crops and your rotations, Tony and Doug Anderson, Washington Court House, Ohio, farmers and partners in Anderson Equipment, a short-line-equipment dealership, recommend attending

## Key Points

- Successful strip tillage starts with knowing your soil.
- Matching implements to soils and conditions is key.
- Sub-inch auto-steering accuracy maximizes strip-till payoff.

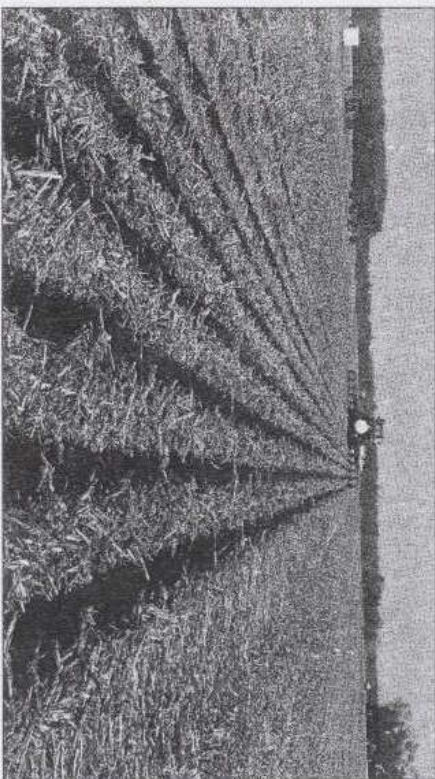
field days and demonstrations to see different strip-till machines in action. Talk to neighbors who are strip tilling. Rent a strip-till machine or hire a custom operator before buying one.

Phil Needham, an agronomist and president of Needham Ag Technologies, Calhoun, Ky., recommends not only seeing how an implement builds strips in the fall, but also how the strips look in the spring. Look for a firm, uniform seedbed. In some conditions, some strip-till implements will pull up slabs of soil or create voids, slots or depressions.

"Building a good seedbed can be a challenge," he says.

- Pick a well-drained soil for your first strip-till effort, suggests Jodi DeJong-Hughes, University of Minnesota Extension educator, Marshall. Good internal soil drainage — either natural or artificial — makes all reduced-tillage systems easier to manage.

- Use combine chaff spreaders on fields that you plan to strip till. The spreaders should evenly distribute



**A GOOD START:** The best of both conventional-till and no-till appear behind a hinker strip-till implement working in corn stubble. The tilled strips are worked, fertilized and smoothed out and will warm up as quickly as a plowed field in the spring, while the residue between the strips will protect the soil from erosion and build organic matter.

chaff back across the whole width of the header, DeJong-Hughes says. However, for corn on corn, it may be best not to chop cornstalks. Leave them standing and till strips between the rows. If your soybeans are tall, you'll want to have a chopper on the combine, advises Anderson. Long vines will get tangled up in the strip-till shanks and baskets.

- Use an real-time kinematic GPS auto-steer system, recommends Steve Cubbage, a Nevada, Mo., farmer and president of RecordHarvest Enterprises, a precision ag consulting firm. Sub-inch accuracy is important when you are strip tilling. You want to place fertilizer in a concentrated band beneath the strips in fall and come back in the spring and plant directly on top of the fertilizer. It gives you the biggest bang for your strip-till buck, he says.

Corn that's planted outside the strip is essentially being no-tilled and plant roots don't immediately intercept the fertilizer as they grow down to moisture, Petersen adds. In Oklahoma and Colorado trials, corn yields fell as much as 6 bushels per acre for every inch beyond 4 inches that researchers were off the strip, he says.

- In cool northern soils, build a berm in the fall that's tall enough so that even after it settles it is at least 1 inch above

the no-tilled areas in the spring when you plant, DeJong-Hughes advises. If the tilled strip is level with the surrounding soil or there is a depressed slot, the row won't warm up as quickly.

- Don't strip till corn into corn or wheat stubble if you are in 22- or 20-inch rows, advises Oia Andersson, an agronomist with the Arthur Cos., Arthur, N.D., which has offered custom strip tilling for several years. Andersson says there is not enough space between 20- or 22-inch rows for the residue that you have to move off the row. However, if you strip till corn into soybean stubble, narrow rows are OK because soybeans don't produce as much residue as corn. Some companies — such as Elmer's Mfg., Altona, Manitoba — have recently introduced narrow-row strip-till implements to build strip in high residue.

- Use a residual herbicide along with a postemergence or Roundup program. Because you are not tilling the whole field, you will have some weeds that are ahead of the corn, Andersson says.

- Gear up for the slower fieldwork in the fall. Strip tilling in the fall takes more time than chisel plowing or disking, Andersson says. But you'll save time and money in the spring because you won't have to work the field again before planting.

## Learn more from strip-till sources

FOR more information from these experts on strip-tillage methods, you can contact:

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