There's nothing wild about this walk

BY **TOM J. BECHMAN**

ONE of the most important decisions you might make in 2016 is whether or not to try cover crops to improve soil health. It won't show up in the bottom line next year, but it may make a permanent, positive adjustment to your bottom line in years to come.

Come walk through cover crops with farmers who insist soil health is the answer. Come along with the people who have helped them fine-tune their systems.

You may have heard the line "Take a walk on the wild side." Those who are making cover crops work insist there is nothing wild about seeing organic matter increase over time, soil health improve and yields increase. Here's a closer look.

DECISION TIME
production

▲ **BRICKS VS. SPONGES:** Standing amid cover crops, Jim Hoorman, Ohio State University Extension specialist, says that tilled, compacted soils have soil particles like bricks. The carbon is removed, and they become micro-aggregates. Once they stick together, it's hard to pull them apart. The sponge in the middle represents organic matter. It keeps the "particles" from packing tightly. Cover crops help add organic matter over time, he says.

▲ **SEE AND BELIEVE:** Barry Fisher (right) shows a field day visitor how the roots of buckwheat penetrate the soil. It's one of the cover crops some no-tillers include in their mixes. Midwest farmers Roger Wenning experiments with a nine-way cover crop mix, and Dave Brandt prefers a 12-way to accomplish various things.

▲ **ORGANIC MATTER MATTERS:** Dave Brandt, Carroll, Ohio, shows field day visitors at Roger Wenning's Indiana farm how soil structure can improve over time by holding soil with good tilth from a no-till, cover crop plot in his hand. Brandt began no-tilling in 1971, and has used cover crops since 1978. He says his organic matter levels have increased from 1% to 5% over time.

◀ **WATER DISAPPEARS AFTER RAIN:** What Roger Wenning appreciates as much as anything about his no-till and cover crop system is how water works into the soil after a rain. "We can get a 2-inch rain and water ponds on tilled fields, but there is no water on my field," says Wenning of Greensburg, Ind. He uses various cover crops, including this one growing after corn on sloping soil.

A true believer of soil health

RAY Weil believes in no-till, cover crops and soil health. It's a better system for the soil, and it can reduce environmental problems.

Weil, a University of Maryland professor, studies problems associated with the Chesapeake Bay region. He came to the Midwest this year to discuss how improving soil health can mitigate environmental problems. Weil has seen how valuable cover crops are in his region and believes they're most valuable when farmers see the importance for themselves.

Environmental concerns are so great in the Northeast that some states invest a large amount of money to pay farmers to grow them. The problem, Weil said, is that not every farmer who participates understands how to raise cover crops.

Weil himself learned from farmers like Clint Arnholt, Columbus, Ind., who has no-tilled and used covers for years. Weil jumped into Arnholt's soil pit and found lots of roots.

Soil health comes back slowly, and you have to stay after it until the system begins to take hold, Weil noted. Later, benefits become obvious.

GIVE IT TIME: Cover crops can help loosen soil and restore soil biology, but it takes time. This pit shows things are changing on Clint Arnholt's farm.