

had to mount the no-till coulters on a separate frame so it was difficult to maintain a constant depth."

**Buffalo Plateless Flex** - Don Carlson, Cherokee, Iowa, uses 14-in. planter sweeps to clear the row of volunteer corn and weed seeds. He's had problems with the Buffalo's computerized hydraulic drive and says the tractor's hydraulic system has to be very clean or the drive may quit working properly.

Larry Palmer, Albion, Ind., has had problems with no-tilling in hard ground. We got poor seed-to-soil contact and liquid fertilizer was placed too close to the seed."

**Buffalo 4500** - Paul Titzer, Henderson, Ky., says his 4500 planter lets him plant in heavy or light residue. "The only time we've plugged it up is when planting in early morning heavy dew."

**Case-International 800** - Stanley Goecken, Delavan, Ill., says this planter lets him no-till without adding coulters or other attachments.

Lynn Harrison, Elk Mound, Wis., says his 800 planter lets him switch from no-till to ridge till with only minor adjustments.

Wayland Magee, Bennington, Neb., says his 800 planter works very well under all conditions. "The staggered discs eliminate the need for coulters. It has good down pressure."

"This planter offers less soil disturbance, aggressive seed trench closing discs, excellent depth control, and good load bearing units. It's easy to adjust and pivots easily so I can fill it with seed. It also plants accurately," says Wynn Provines, Vandalia, Ill.

Terry Roth, Pender, Neb., added Case-III 900 series ground-driven row units between his planter's row units. They allow him to no-till in 18-in. rows under all conditions, including alfalfa. He says the planter doesn't need coulters.

"It lets me no-till my heavy soil and still get a great stand of corn and soybeans," says Dave Wohlers, Waverly, Ill. "It also lets me till conventionally without changing the planter. My only complaint is seed bounce in the furrow. Seed depth is also not as accurate as I'd like."

**Case International 900** - Dennis Whitsitt, Huntingburg, Ind., equipped his planter with splitter row units so he can switch from 30-in. corn to 15-in. beans. "The planter itself delivers precise seeding and population control."

Edwin Kudlacek, Valparaiso, Neb., first used an 800 planter before trading for a 900 model. "I had no problems getting a good stand with either planter. The 900 has heavier bearings on the furrow openers. However, it has notched offset furrow openers which make it harder to hold on the row. The openers have to be run deeper and they make a ridge that's a problem for the trailing furrow openers."

Joseph Clegg, Jacksonville, Ill., equipped his planter with Sukup Ridge Guides which brush crop residue to the side. "We get consistent seed depth without using coulters which often loosen the soil and allow washing."

**Deutz-Allis Planters** - Peter Kapustka, Barnum, Iowa, says this planter's disc opener system is impossible to keep clean. "I planted only 120 acres in 10 days before I removed the openers from a Deere 7100 and installed them on the planter."

"This planter's depth control is totally inaccurate," says Berry File, Pochontons, Ill. "The individual fan motors worked only for about four hours before they burned up."

J. Malburg, Richmond, Mich., added

Rawson coulters to his 535 planter so he can accurately place starter and 28% nitrogen fertilizer. "The disc closing wheels close the opening without compacting the soil."

**Deere 7100** - Darrel Schafer, Hector, Minn., likes his 7100 planter's ease of maintenance and ability to stay on ridges. However, he says the slot doesn't close properly behind the disc openers.

Perry Clamme, Hartford City, Ind., equipped his planter with Buffalo Ridge Runners and says it'll handle no-till, ridge till, or conventional till with excellent results. "With enough rain, I think I could get a good stand with this planter on a gravel road."

Rex Ulrich, Sand Creek, Mich., installed another 3 by 7-in. toolbar in front of his 8-row 7240 planter and lengthened the tongue by 30 in. to convert it into a 15-row unit. "I placed a pair of 2-in. coulters in front of each row and mounted a no-till coulters on each row unit. I run the coulters 5 in. deep. It works great and will go through anything. I use one coulters per row with soybeans. I use a hydraulic tongue to adjust coulters depth. However, it takes a 175 hp tractor to pull this rig."

David Michaelson, Dawson, Minn., says his 7300 planter plugs up less often than the Case International 800 Early Riser he owned before. "The shoe on the 800 planter would apparently cause mud to build up between the discs in wet conditions. The 7300 planter has discs but not shoes."

Paul Aleshire, Hoopeston, Ill., says that he wouldn't have been able to complete planting on time during last year's wet spring without his 6-row double frame Kinze unit. "Seed placement accuracy in both corn and bean stubble was super."

"We use a Kinze toolbar equipped with Deere 7000 row units, Acra-Plant double disc notched runners, and Deere furrow openers," says Verdel Stork of Arlington, Neb.

Ray Wetli equipped a Kinze toolbar with Max-Emerge row units and no-till coulters and says the combination worked well.

**New Idea 900** - "It's the best planter I've ever used," says Duane Cole of Lewisville, Ind., about his 6-row New Idea. "Uniform seed depth in sod, rocks and bean stubble is a major benefit. Places seed perfectly and covers it extremely well."

**White 5100 Air** - Kevin Sturmsma, Pella, Iowa, mounted a bean bar and five row units on the rear of his 6-row, 30-in. corn planter which lets him plant 15-in. row soybeans.

Jerry Soukuo, Morse Bluff, Neb., had problems getting furrow openers to work in no-till hay ground. They worked better after he added down-pressure springs.

**White 5400** - Rudy Teichman, Durand, Mich., says seed placement and germination have been excellent ever since he mounted Rawson no-till coulters on his planter.

Ned Peters, Amanda, Ohio, says his planter doesn't close the seed furrow well enough. "We also can't keep the fertilizer openers from swinging over into the coulters furrow so fertilizer ends up too close to the seed. We've had too many mechanical problems, and it's difficult to change the settings for seed corn and fertilizer."

J. Malburg, Richmond, Mich., says his 5400 planter's coulters aren't built heavy enough for good fertilizer placement. He's also had problems with wiring that leads to the electric motors and seed monitor. "It gets pulled apart by corn stalks."



Disc openers and press wheels are supported by parallel linkage extending backward from toolbar under seed hopper. Hand crank on each row unit adjusts depth.

## GAS-POWERED DOWN PRESSURE

# Shop-Built Drill Solves Depth Control Problems

By Gene Schnaser

When Eugene Meyer, who farms near Clarks Grove, Minn., began drilling soybeans no-till years ago, he discovered that equipment manufacturers had a way to go in offering effective depth control. After experimenting for the past six years, he's come up with a drill that he says "plants like a dream" and offers unheard-of seed placement accuracy.

Field tested for the first time this past spring, his shop-built drill incorporates several major improvements including an innovative coulters down-pressure system which uses a nitrogen accumulator, 25 planter units 10 in. apart suspended from unique parallel-linked carrier frames, and rear lift assist wheels mounted on load-leveling walking beams.

"The entire drill was built from scratch except for the seed hopper and seed delivery system which were salvaged from an older Tye drill," Meyer explains. "I used it to plant more than 1,200 acres this spring, 95 percent of it in mud, and you have to see it to believe how well it works."

The drill has specially designed carrier frames for the double disk openers and press wheel on each planter unit. Using parallel linkage, the front section of each planter unit fastens to a beam under the seed hopper. The back section of each unit, which supports the disk openers, extends rearward to the press wheel.

A hand crank mounted on each row unit is used for depth adjustment. "Each can be precisely adjusted individually, not just notch-adjusted like other drills which allow too much variation," says Meyer.

"Unlike other drills on the market, when the rear wheel raises with this set-up the disk openers raise at the same rate," says Meyer. "There's no variation. If you set the wheel to run 1-1/2 in. deep, that's what you get."

Meyer's drill has lift assist wheels both front and back, and the rear wheels also contribute to seed depth precision. "The drill has four wheels in back, but each pair of wheels are staggered on a walking beam. So if the drill crosses a trench or gully, it will only drop half the distance it would otherwise."

In no-till, weight and pressure are everything so Meyer mounted 16-in. Yetter bubble coulters on the front of each of the 25 planter units with down-pressure cylinders hooked to compressed nitrogen to provide cushioned pressure. An accumulator tank, sal-



Hydraulic cylinders hooked to a nitrogen accumulator system from an old Oliver plow provide adjustable, cushioned down pressure on "bubble" coulters.

vaged from an Oliver plow, stores compressed N and can be adjusted to press the coulters into the ground with 250 to 300 lbs. pressure per square inch, depending on soil hardness. The accumulator connects to a 1-1/2-in. pipe which distributes pressure through flex hoses running to each cylinder.

Meyer says the Yetter bubble coulters he's using have performed the best of any he's tried for no-till drilling. The coulters have oval-shaped protrusions staggered on each side and slice an adequate opening without excessive soil disturbance. "I've found that ripple coulters move too much soil under wet conditions," he says. "And though the big waffer coulters work nice in a drier seedbed, for no-till they bring up too much mud and leave a 2-in. track which can't be closed."

To penetrate harder soils, like alfalfa sod, Meyer mounts a 1,000-lb., 21-ft. section of railroad rail mounted over the coulters. He also installed 4-in. by 6-in. rectangular tubing directly under the rail which can be filled with extra ballast.

Reed Deemer of Hartland, Minn., had Meyer plant 75 acres he couldn't get near this spring with conventional equipment. "The most amazing thing is that it never plugs up. Next year I plan to have him put in 200 acres for me on untouched corn ground."

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