

Zig-Zag Drill Plants In Crooked Rows

"You can plant 25% more seed with this zig-zag pattern than with a conventional drill," says William Nichols, of Corral, Idaho, inventor of the "Zig-Zag" drill. Its hydraulically-driven planting shoes move back and forth to get more seed planted per acre, and to get it spaced more uniformly.

The precision drill is designed for one-pass planting after plowing, disking or chiseling. It prepares the seedbed, applies chemicals and "multi-packs" seed once it's in the ground. It's heavily built and weighs about 50% more than a conventional drill of comparable width.

"By spreading the plants out at equal distance rather than trying to squeeze them into the same row, you get stronger plants with bigger heads and less stooling," explains Nichols. "If you're using a planting rate of 100 lbs. per acre with a conventional drill, for example, you'll get 25% more seed per acre or 125 lbs. with the zig-zag drill, and it will all be more uniformly spaced and distributed."

Across the front of the drill's heavy-duty frame, shanks inject liquid fertilizer directly into the soil. Behind the shanks are two rows of pto-powered curved knives that incorporate the liquids and work surface stubble into the seedbed. In back of the knives, a solid bar, shaped much like blades on a sickle mower, smooths the seedbed and insures uniform planting depth. The planter shoes, spaced 6 in. apart, are driven

back and forth hydraulically. Grain flows from the 3,000 lb. seed hopper and through drop tubes is ground-speed controlled.

"You can plant down to 4 in. with only a 1/4-in. variance, compared to about 2 in. on many drills, so it's much more accurate. However, it only works the soil thoroughly down about 2 in. It's not a tillage tool but a seedbed preparer," says Nichols. He adds that since the knives are self-cleaning, heavy trash or stubble doesn't present a problem.

Nichols field tested his new-style trailing drill for the first time last year. "We planted both wheat and barley. Seed stands were excellent. We want to test it more extensively this year," he told FARM SHOW. He used a 100 hp. tractor to pull the 19 ft. wide prototype that has a 14 ft. planting width. Nichols says production models of the drill will be available in larger widths.

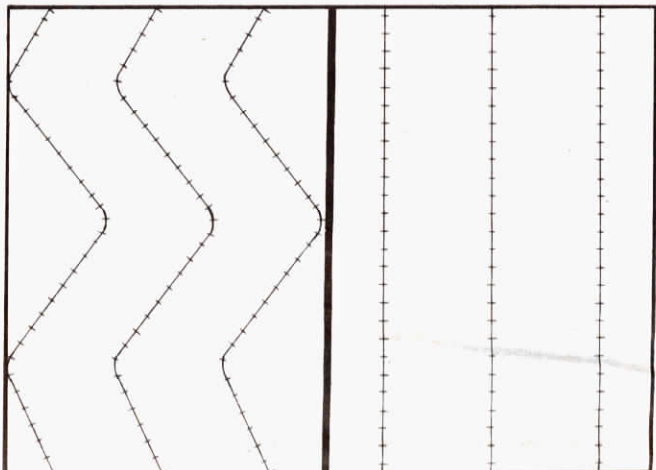
"This drill's biggest selling point is that it cuts my planting overhead by about 50% in less trips through the field and therefore less labor and less fuel needed."

Although he's hoping to sell the drill to a manufacturer, he is ready to produce it now in limited quantity. An optional attachment makes it easy to block off rows and plant most any crop, including soybeans.

For more information, contact: FARM, SHOW Followup, W. K. Nichols, P.O. Box 18, Corral, Idaho 83322 (ph 208 764-2442).



Pto-powered knives on Nichol's drill prepare a seedbed for the zig-zagging planting shoes.



Using "straight-row planting" you can plant 78 seeds in a given field area, above right. Nichol's zig-zag planter can plant 99 seeds in the same-size field, above left, with the same row spacing and seed spacing in the row.

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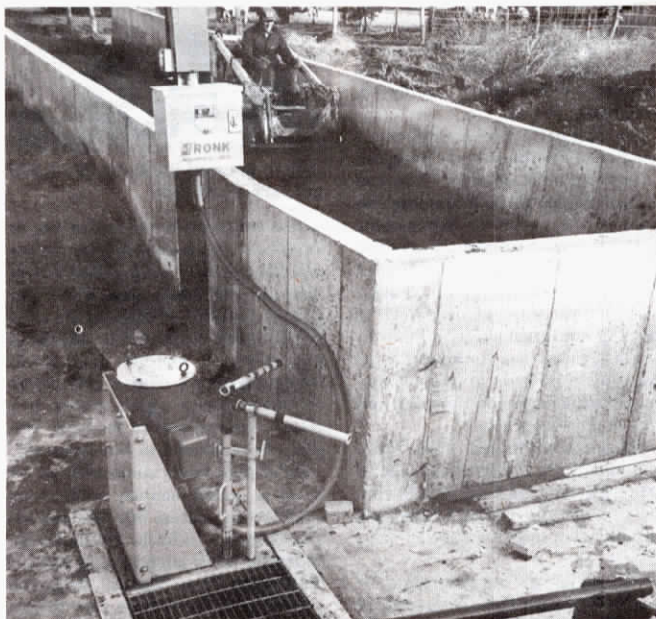
Every day, Don pushes fresh manure from his 90 Holstein cows down a concrete ramp (with 4 ft. sides) and on into a pit that holds 6,000 gal. All manure goes into the pit, including

that from his loafing barn which contains chopped straw.

Once in the pit, Brown turns on a 15 hp. Ronk motor-converter that runs a beater down in the pit. Frozen chunks are pushed in, too. After the manure is emulsified, Brown then pumps it into the Slurrystore.

A spokesman for Ronk Electric notes that old style single-phase electric motors are generally limited to 5 or 7 1/2 hp. on rural lines. Thanks to the company's converters and motor packages, much larger hp. motors are now practical on the rural electric lines.

"Virtually any farm today has the electric power to operate a motor-converter such as Brown's 15 hp.



Jim Brown moves liquid cow manure down this 88 ft. runway to a 6,000 gal. pit in lower foreground.

motor. Much larger motors, to 150 hp., are available if larger electric services are installed. This means large electric horsepower for grain drying and handling, grinding, pumping and the like can now be utilized to improve productivity

while keeping operating costs down," according to Ronk Electric.

For more information, contact: FARM SHOW Followup, Ronk Electric, 1209 East State Street, Nokomis, Ill. 62075 (ph 217 563-8333).