

NEW-STYLE MACHINE DOES SEVEN JOBS

Giant No-Till Drill Injects "Pop-Up" Water Into Row

A Western Canadian farmer who wants to reduce the risk of crop failures in dry years has built a first-of-its-kind giant no-till drill that injects water into the row.

Paul Christman, Peace River, Alberta, calls his big machine a "Wondervator" because, he says, everyone who sees it wonders what it is. The machine is a 1-pass sprayer, cultivator, deep bander, harrow, seeder, water injector, and packing harrow.

Christman spent \$50,000 to build the machine because conventional methods weren't working for him. "There were too many crop failures, often because of uneven germination, frost damage, and other events that seemed beyond our control. We tried to farm the recommended ways, using the proper chemicals and fertilizers but then along came dry years and it was all for nothing."

The Wondervator applies 250 gal. of "pop-up" water per acre, injecting it into the row right along with the seed. Other components of the machine include:

- Two rows of cultivator shanks with 16-

in. sweeps.

- Two rows of banding boots on spikes for deep banding fertilizer one inch below the sweeps' working depth.

- Four rows of spray nozzles for soil-incorporated chemicals or broadleaf weed control.

- Three-row tine harrow with 18-in. tines.
- A set of diamond drag harrows.
- Two rows of seed tubes with the water injector nozzles for 'pop-up' germination.

The machine has impressive carrying capacities, including:

- Chemicals - 600 gal.
- Seed - 140 cu. ft.
- Dry fertilizer - 140 cu. ft.
- Water tanks - 2,500 gal.

Total weight of the 22-ft. wide drill is 18,000 lbs. Fully loaded, it weighs 60,000 lbs.

Christman says the extra effort required to operate the big drill - which is narrower than most drills used on the Western plains - is worth it. "We can do the same work in a day as our neighbors who need three



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passes to do the same set of operations. We have the advantage of seeding right into stubble and not drying out the top soil."

Christman seeded 1,600 acres with the machine last year. "We averaged 100 acres a day, injecting 250 gal. per acre while seeding and applying trifluralin with 30 gal. of water," he says.

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Up-front rock reel pulls rocks into loader bucket which dumps them into rock bucket behind.

UP-FRONT REEL RAKES ROCKS AND ROOTS INTO BUCKET

"Rotary" Rock Picker Mounts On Any Swather

"I built my first rock picker back in 1960 so this new rotary rock picker is the result of nearly 30 years of design work and experimentation," says Cliff Ranger, Lloydminster, Sask., inventor and manufacturer of a new rock picker - fitted with a rock and root raking reel - that's design to fit any swather.

The out-front hydraulic-powered reel, fitted with 4 rows of 1-in. dia. steel tines, works down to 2 or 3 in. below the surface, raking rocks and roots into the rock lifting scoop behind it. As the rock lifter fills up, it dumps to the rear into a solid metal rock bucket. When the bucket fills up, you drive to the rock pile, dump it out the front, and back away.

"It's got much more maneuverability than any other rock picker because it mounts on a swather. You can turn on a

dime and clean up an entire hillside in the time it takes a conventional, trailing rock picker to turn around to make a second pass. It can handle smaller and bigger rocks than any other rock picker - from 2 in. dia. up to 40 in. Another advantage is that you don't drive over the rocks before you pick them. It's also the only rock picker that easily handles roots because the reel pulls them in," says Ranger.

The 5-ft. wide rock picker is designed to mount in place of the table on any swather. It uses the swather hydraulic controls to drive the reel and dump the bucket. Ranger says swathers do a great job carrying the rock picker. "Unlike a tractor, it doesn't have a lot of traction so if you hit a rock, the wheels just spin so you don't damage the teeth on the picker. It lets the reel do the



Steel rail wheels mount just inside over-the-road rubber-tired wheels.

BOTH STEEL AND RUBBER WHEELS

Over-The-Road Truck Also Rides The Rails

Rather than load your truck to haul grain to an elevator for shipment by rail, you may soon load directly into railroad cars right on the farm.

A far-out idea? Not really.

A hopper car that can travel on rails to a destination, and then be derailed and moved over conventional roads to a feed mill, feedlot, or farm bins is being built in Gainesville, Georgia.

E.C. Agee of Rail & Trail, the company formed to develop, test and market the new dual road/rail car says the idea has tremendous potential.

"Railroads have to modernize their equipment to compete with trucks. This rail and road car is the first step," he says, noting

that the idea will work with hopper cars, flat cars, box cars, and any other rail car.

Agee says the new hopper cars look a lot like standard rail cars. The prototype is 65 ft. long and is capable of carrying about 75,000 lbs. of cargo. Rail couplers protrude out the rear just as on conventional railcars.

Steel rail wheels mount just inside over-the-road rubber-tired wheels. To ride the rails, air pressure is simply reduced in the rubber tires. The same undercarriage is used for both modes of travels.

For more information, contact: FARM SHOW Followup, E.C. Agee, Rail & Trail, Box 720338, Atlanta, Georgia 30358 (ph 404 847-0512).

work of pulling rocks off the ground," says Ranger.

Manufacturing rights for the picker were sold to a farm implement company that later went bankrupt. Ranger took back the rights and now works with a local manufacturer to produce the pickers. They sell for right at

\$5,500.

For more information, contact: FARM SHOW Followup, C.A. Ranger, 4916 41 St., Box 1377, Lloydminster, Sask. S9V 0C9 Canada (ph 403 825-7911 or 875-8604).