

Kurtz pulls a 10-ft. wide smooth roller ahead of the drill to level out gopher mounds and clods and an 11-ft. wide packer behind it when planting oats and alfalfa.

Cultipacker Pulls Behind Drill Or Moldboard Plow

Bill Kurtz, St. Croix Falls, Wis., used two old 6-ft. cultipackers to make a single 11ft. wide packer that he pulls behind his grain drill when planting oats and alfalfa. He also pulls it behind his 6-bottom plow which allows him to plant corn with no further tillage.

"It really works well on my sandy ground," says Kurtz. "The only time I have to disk is when I plow up sod."

He made the cultipacker by moving the two 6-footers together and welding the center shafts end to end, then welded the two frames together. He pulls it with a 10ft. long hitch behind the drill to keep the drill's wheels from interfering with the cultipacker on turns. He can disconnect the cultipacker by removing two pins.

"I use wheels on the cultipacker whenever I pull it behind the drill, but I remove them when I plow," says Kurtz. "I pull a 10-ft. wide smooth roller ahead of the drill to level out gopher mounds and clods. I used a length of 16-in. dia. well casing to make the roller and mounted it on a homebuilt frame that I welded to an old disk



Kurtz also pulls the packer behind his 6bottom plow which allows him to plant corn with no further tillage.

frame. I welded both ends of the well casing shut and mounted a plug on one end so I can fill it with water for extra weight. I ran a pipe through the casing and welded a 16in. long shaft onto each end. I use the original disk cylinder to raise or lower the roller. A grader blade mounted ahead of the roller knocks the top off gopher mounds to make leveling easy."

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"Live" Pto For Smaller Tractor

"I built it to give smaller, 20 hp size tractors like my early 1950's Allis Chalmers C more versatility. I use the tractor to mow 10 to 12 acres of turf every week," says Ralph Johnson about a "live" pto system he built to drive a belly-mounted mower.

The idea earned him \$375 in prize money in the inventors' contest at last fall's Outdoor Farm Show near Burford, Ontario.

The pto direct drives off the tractor's crankshaft. To do so, Johnson extended the driveshaft 8 in. with a 1-dia. shaft mounted on the crankshaft's pulley. He then mounted a 6-in. dia. centrifugal clutch, which spins at the same rpm's as the crankshaft, on the end of the shaft extension. He mounted a direction reverser, a 1 to 1 gearbox, on front of the tractor so the pto shaft rotates clock-

wise to drive the 6-ft. wide Douglas mower deck in its belly-mount position. A #50 roller chain and sprocket reduction drives the gear box in the correct drive ratio.

For safety, the pto is designed to automatically engage at over 700 rpm's and disengage at under 700 rpm's.

Johnson built the pto system, including a sheet metal shield over the gearbox, for less than \$1,000 (Canadian) out of materials he bought at a commercial parts store. He's installed similar systems on an Allis B and an International C.

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Four-Row Side Discharge Flail Windrower

"It allows you to make a double windrow and can cut trips across the field in half when baling corn stalks," says Edwin Rissler, New Enterprise, Penn., about the 4-row side discharge flail windrower he built from scratch.

Rissler built a 12-in. side discharge auger on the 10-ft. windrower. It lays down a 4-row (30-in.) windrow on the right side of the machine. You can build an 8-row windrow by simply doubling back to lay a second 4-row windrow adjacent to the first. It allows you to cut field trips by 50 percent compared with similar size middle discharge

chine "Old Smokey". An engine overhaul eliminated the smoke, but the name stuck.

Contact: FARM SHOW Followup, Powell Implement Co., 211 West 32 Highway, Box 250, Stockton, Mo. 65785 (ph 417 276-3317; fax 417 276-6337). machines that restrict you to baling only a single row at a time.

He used a rotor built by a manufacturer of commercial flail windrowers and welded his own knives onto it. The rotor throws chopped stalks by centrifugal force into the auger. A pto-driven gearbox drives the rotor and auger. Two paddles at the end of the auger direct stalks out the back. The machine can be converted from windrowing to conventional shredding in minutes by pulling a pair of pins and lowering a lid that diverts stalks away from the auger.

"I've made four of the units so far for area farmers and they've worked well," says Rissler. "However, I have a small shop with limited capacity so I don't plan to build any more."

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Old Allis-Chalmers Makes Dandy Reverse "Lift Tractor"

When J.P. Powell, Stockton, Mo., needed something to move machinery at his farm equipment business, he decided to build his own "lift tractor" by reversing a 1936 WC Allis-Chalmers tractor and installing a New Idea loader on it facing backward.

He reversed the steering, clutch, and brake controls on the tractor and mounted the loader at the rear. The gas tank was repositioned and a new seat was installed in its place. A hydraulic pump that's chain-

., needed driven off the engine crankshaft provides his farm full-time hydraulics for the loader.

He removed the loader bucket and replaced it with a pair of bale spears. Powell uses the spears to haul machinery as well as round bales for his cattle.

The "lift tractor" worked so well that as soon as it was built Powell started using it every day before he even had time to overhaul the engine. The resulting oil blow-by caused his shop employees to call the ma-