

## CYCLO AIR PLANTER MOUNTS ON 1979 MASSEY COMBINE

# Self-Propelled Planter Built From Old Combine

By Bill Gerger, Associate Editor

"Nothing can beat it for visibility and maneuverability," says Bill Augustine, Rose Hill, Iowa, who converted his 1979 Massey-Ferguson 760 combine into a self-propelled 8-row planter that also doubles as a 55-ft. sprayer with a spray boom.

Augustine mounted his International 500 semi-mounted, 8-row air planter on front of the combine by cutting away part of the feederhouse to make room for the planter row units. He used steel tubing and sections of steel plate to build quick tach arms to fit the back of the planter. They match quick tach brackets on the feederhouse. He shortened the combine wheelbase 18 in. and moved the cab to the center of the machine after the grain tank and grain threshing components were removed. A 500-gal. spray tank behind the cab carries herbicides. He moved the engine and fuel tank to the back, turning the engine and trans-

mission lengthwise. The combine's original drive tires were too wide for his 30-in. rows so he replaced them with 18.4 by 38 rear tractor tires.

A hydraulic pump that's belt-driven off the engine crankshaft is used to power the planter's blower. The sprayer pump is also belt-driven off the engine crankshaft.

"It gives me a good view of the planter without having to look back all the time," says Augustine, who converted the combine three years ago and has used it to plant about 1,000 acres of corn and soybeans each year. "The combine was in good shape except for the threshing mechanism. I got the idea because I wanted a simple machine that would allow me to both plant and spray, and because I wanted to be able to plant and spray in wet conditions without having to use a tractor. It has good flotation - I can get in fields where I couldn't go with a



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tractor. I didn't have to change tire spacing at all. It straddles four rows. I harvest with an 8-row combine so I can follow in the same tracks all year long which limits soil compaction. The planter weighs about the same as a header, so the combine can easily handle the weight. It's easy to steer even in wet conditions.

"I modified the planter for no-till by equipping it with Yetter row units and Martin row cleaners. I mounted a 20-ft. spray boom behind the planter units so that I can apply preemergence herbicides while I plant. Solenoids on the spray boom are wired to a car dimmer switch in the floorboard of the cab so I can use my foot to shut off the boom at the end of the field."

"The combine's 160-hp V-8 Perkins diesel engine has more power than I need. The engine was designed for maximum load at full rpm's and tended to 'lurch' too much. I turned the governor down so it would run smoother at lower rpm's.

"By pulling two pins I can drop the feederhouse and back away from the planter, then quick-mount the spray boom." Augustine says he thinks any combine with a heavy front axle and transmission and adequate hydraulic capacity would make a good candidate for planting.

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Kurz mounted a 300-bu. side-dump gravity box on a built-from-scratch wagon frame.

## Lightweight Rear Dump Grain Cart

When Tim Kurz borrowed a neighbor's 500 bu. grain cart with unloading auger during harvest a few years ago, he soon discovered it didn't work that much better than unloading into his truck parked at the edge of the field.

"Because the cart weighed so much to begin with, I could only fill it with 100 or 150 bu. on soft ground before I'd get bogged down. In wet conditions I still wound up having to drive to the edge of the field with the combine," says the Vandalia, Mo., farmer.

So Kurz decided to design a lightweight, rear-dump cart that would combine some of the best features of both his truck and his neighbor's grain cart.

"It's as handy as having another truck to haul grain with," he says. "Because it doesn't weigh as much as the 500-bu. commercial cart, I can usually get out to the combine regardless of conditions. I can get up to 200 bu. on it even when it's soft."

He used a 300 bu. side-dump gravity box mounted sideways on a built-from-scratch wagon frame made up of 6 by 6 in. H-beam, with a V-shaped tongue extending 12 ft. forward.

The frame and wagon mount on an axle made out of two Deere 55 combine front axles bolted together end-to-end, for a total tread width of 13 ft. Kurz used the final drives and wheels from one of the combines.

Because of the position of the wheels, the only way Kurz could mount the gravity box and still be able to unload it was sideways. "As it turned out, that worked out real well because I can see underneath the wagon and tell how I'm lining up with my auger when I'm backing up," he says.

The most difficult part of building the cart, which Kurz pulls with either a Deere 4820 or 4840 2-WD tractor, was getting the gravity box lined up and squared on the frame, he says.

"I built it in the winter of 1993-'94 and used it last year for the first time," he says. "I hauled about 20,000 bu. of corn, soybeans, wheat and milo in it and it worked out great."

Including the used gravity box, Kurz has about \$1,150 invested in the cart.

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## Self-Propelled Fenceline Mower

"I built it to keep the electric fence surrounding my apple trees free of weeds. It makes the job easy and is fun to operate," says Harold Smith, Muscatine, Iowa, about his unusual double-decked fenceline mower fitted with a "one-hand" handle.

The 32-in. self-propelled mower has two decks mounted side-by-side and fitted with 16 1/4-in. blades belt-driven off the engine crankshaft. The mower is carried by two 10-in. wheels and a low-profile 4-in. dia. rubber-covered roller that mounts behind the outside deck. The roller was made by covering a wood roller with rubber pipe.

The mower's single handle swings to either side or can be adjusted up and down by loosening allen set screws. It's fitted with a squeeze-type clutch control and throttle. The single front wheel is chain-driven off a right angle gearbox.

Smith used 1/4-in. steel plate to make the deck. A 3 1/2 hp Briggs & Stratton engine bolts on top.

"I've used it for two years with no problems," says Smith. "I have a 3-ft. high electric wire on each side of a row of apple trees. I mow about 6 in. high under the fence. I can work the throttle,



put the mower in gear, and steer all with one hand. It's handy to be able to swing the handle out to either side. If the mower doesn't have enough traction, I just lift up on the handle to put pressure on the front wheel."

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Frame and wagon mount on an axle made out of two Deere 55 combine front axles.