They "Tripled" Their Double Rake

Quentin Fry and Sons, Montpelier, Ohio, built a hydraulic drive 28-ft. wide "triple" rake from three 23-ft. wide "double" rakes, allowing them to rake at a faster ground speed and make a bigger windrow ahead of their two Hesston 4800 big square balers.

The Frys widened the frames on their two Vermeer R-23 double rakes, then bought a new R-23 rake and took it apart. They discarded the frame and mounted a basket and hydraulic motor behind each double rake.

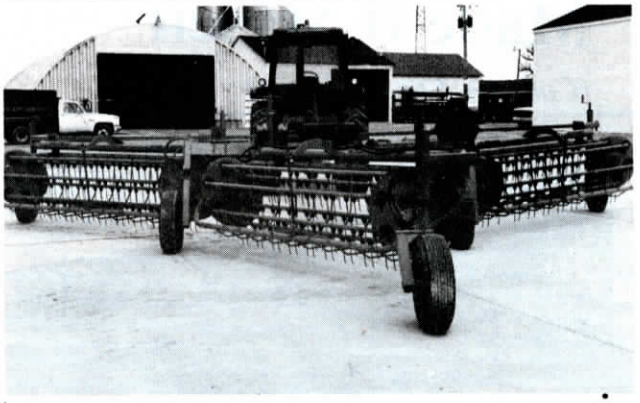
"We bale 3,000 to 4,000 acres of straw each year so we have to cover a lot of ground in a hurry," says Quentin, who buys swathed straw from area farmers, rakes and bales it, and sells it to local mushroom growers. "To make better time we always try to keep the baler full so we want the biggest windrow possible. Our double rakes worked fine until we got into heavier straw which caused the baskets to plug up at the 'V' opening. The modified wider rakes build bigger windrows without plugging up. The front two rakes leave two windrows about 5 ft. apart. The extra basket behind then puts the two separate windrows into a single large one. By widening the front rakes we also were able to increase their angle so they don't have to roll straw as far. It lets us drive almost twice as fast."

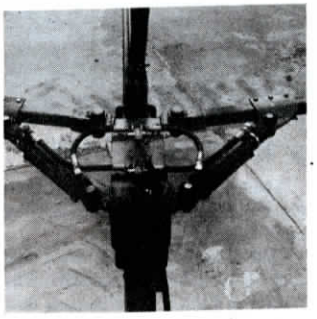
The Frys widened each double rake by bolting a 28-in. long, 4 by 6-in. steel plate onto the rear end of the frame supporting each basket. They bolted a bracket onto the lengthened frame, then bolted the extra basket to it. "We can switch from a triple rake back to a double rake by simply unbolting the extra basket," says Quentin.

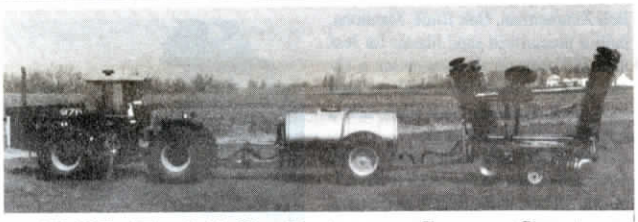
The rakes were designed to be folded mechanically in toward the tongue. The Frys converted them to hydraulic fold by mounting a pair of 1 1/2 by 8-in. hydraulic cylinders onto the tongue. "We bale 100 to 150 different fields each year so hydraulically folding the rakes from the tractor seat is a real plus," notes Quentin, who also replaced the original 12-in. dia. castor wheels with 16-in. dia. implement tires. "The bigger tires handle rough terrain better, especially since we're now raking at twice the ground speed."

To turn wet windrows, the Frys remove the rear basket and mount it "backwards" in front of their tractor. They made a mounting brace from 4 by 6-in. box tubing and mounted it on the tractor's weight bracket. It attaches to the rear of the rake and to a second brace arm that bolts to the front of the rake. "We didn't need the extra basket behind the double rake to turn wet windrows," says Quentin. "By mounting the basket on the tractor we can turn three windrows at once."

Contact: FARM SHOW Followup, Fry Bros., Rt. 2, Box 409, Montpelier, Ohio 43543 (ph 419 485-4002).







"Milk Tank" Go-Between Spray Cart

"It's the world's finest 'go-between' spray cart," says Russ Day, Grimes, Iowa, who built his high-capacity spray cart by mounting a 2,000 gal. high grade stainless steel milk tank removed from an old milk truck on a Brent grain cart axle equipped with 24.5 by 32 10-ply tractor tires.

Day pulls the cart between his Versatile 976 4-WD 360 hp tractor and a tandem finishing disk which is equipped with a pair of spray booms, one mounted in front of each gang.

"I built it because I got tired of dealing with the problems I had using commercial spray carts," says Day. "Most of them are built cheap with leaky plastic tanks that break down from ultraviolet light, small 15-in. dia. tires, booms that fall apart, cheap frames, and plastic pumps with plastic impellers. My spray cart is built to last a long time. The frame is built from 4 by 8-in. steel tubing, 5/16-in. thick. The axle is built from 8-in. H-beam and is rated at 20 tons. The tractor tires have large 5-in. dia. wheel bearings and are wide for flotation and tall for riding over bumps without shaking everything apart. The 2-in. Memphis Pump sprayer pump is built from cast iron steel and the plumbing is all 2-in. The tank is equipped with a Micro-Trak MT-3000 spray controller."

The spray booms on the disk let Day spray in front of the front gang only, in front of the rear gang only, or in front of both gangs at once. Which one he uses depends on the herbicide, soil type, moisture, and field conditions. "I use a disk because it'll handle very heavy trash and still incorporate Treflan which is the cheapest grass herbicide for soybeans," says Day. "Treflan normally has to be incorporated twice, but rather than incorporate twice, I spray twice and do a job equal to 1-1/2 passes. Herbicide sprayed in front of the rear disk gang contacts freshly turned soil that hasn't been sprayed yet resulting in more thorough incorporation. This system probably would work with a Soil Finisher, but probably not with a field cultivator because of clearance problems with the rear spray boom. I can use the system in chisel plowed ground to apply herbicides that require shallow incorporation by spraying in front of the rear gang only. The front disk gang smooths out the ridges. In a level field that was disked the previous fall, I can spray herbicide and nitrogen at the same time in front of the front gang only to burn down growing weeds."

The 2,000-gal. tank weighs 22,000 lbs. when full and lets Day spray up to 100 acres at a time.

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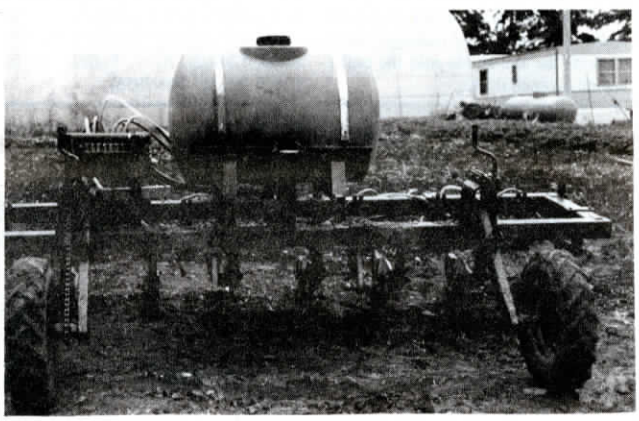

3-Pt. Ground-Driven Nitrogen Side Dresser For Narrow Rows

"It's a quick, easy way to apply nitrogen and it cost less than $2,500 to build," says John Van Dorp, Woodstock, Ontario, who mounted Yetter coulter assemblies, a squeeze pump, and drive tires from an old corn planter onto a rectangular steel frame to build a 3-pt., ground-driven, 6-row side dresser that applies liquid nitrogen to growing corn in narrow 20-in. rows.

Van Dorp used 4-in. sq. steel tubing to build the frame and mounted the drive wheels on either side. A cradle on top of the frame supports a 100-gal. tank. Liquid fertilizer is delivered from the tank through drop hose tubes to knives mounted behind the 20-in. dia. Yetter coulters which Van Dorp mounted underneath the frame's rear bar.

Van Dorp started planting corn in 20-in. rows to help reduce fertility needs by increasing the space between plants and reducing root competition. "I use a combination of special fertilizers including 28% nitrogen, molasses, ammonium thiosul, liquid calcium, and soil conditioners which, combined with the efficiency of sidedress application, let me maintain yields with one third to one half the normal rate of fertilizer. On 20-in. rows I can't cultivate unless I drive extremely slow to avoid covering up the corn. I didn't want to drive that slow on 200 acres so I built my own side dresser equipped with coulters instead of cultivator shanks. The Yetter coulters barely disturb the soil and let me apply nitrogen at 8 mph without affecting the corn at all. It's really easy to use because the ground-driven squeeze pump stops the flow of fertilizer when I lift the rig up at the end of the field. When I built the rig I intended to mount new Yetter 30-in. dia. coulters on it, but when I found out what they cost I decided to use my corn planter coulter assemblies. It saved me about $200 per row."

The left tire serves as the drive wheel. A hand crank connected to each wheel is used to adjust coulter depth.

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