Ohio farmers Gerald Milo and his son build vertical tillage implements using older and refurbished frames from conventional disks.

Father-Son Duo Build Unique Tillage Implement

Seven years ago, inventive farmer Gerald Milo and his son looked at expensive and heavy vertical tillage (VT) implements and decided they couldn't justify buying one for their 500-acre farm in Northern Ohio. Instead of pulling into the field with the same old tillage tools, they decided to build a new implement themselves.

"We call our machine the Mix and Till, and it does an excellent job of fall and spring tillage, for way less money than buying specialized VT equipment," Milo says. "We spent 3 years developing and testing this concept on our farm, and by all accounts it's been very successful. We built it by reconfiguring an existing tandem disk. We replaced the arbor and the concave disk blades with a heavy duty 1 1/4 in. shaft and wavy or vortex coulters. We did that because concave disk blades squeeze the soil together as they go in the ground, creating compaction. The wavy coulter we used cuts and mixes residue with light to moderate soil disturbance. The vortex coulter has a more aggressive cutting and soil mixing action. We run the machine at a depth of 1 to 2 in. and travel 6 to 7 mph."

Milo says some VT equipment on the market seems to be made just so farmers can get in the field a few days earlier in the spring or work a week longer in the fall. "Some of those frames are so darn heavy, 15,000 to 18,000 lbs., that they need a 100 hp tractor just to pull it around a farm yard," Milo says facetiously. "Putting that heavy machine in the field compacts the ground, especially in the spring." Milo's Mix and Till machine is about 20-30 percent lighter than big VT machines, but he says that's not a problem.

Their wavy coulters cut and mix residue while aerating the soil.

"We're using extra sharp wavy or vortex blades, so we don't need a massive heavy frame."

The Milo's have built and sold several Mix and Till machines in the past 4 years. All of them were originally conventional disks ranging from 12 to 30 ft. wide. Better yet, the cost of his machines is considerably less than other VT equipment, so smaller farmers can afford them. Says Milo, "If we supply the disk frame on a 21 ft. unit, we put on all the blades along with a Remlinger single rolling basket and price it at $26,500." He says they've had good interest in their machine in Ohio, but haven't really spread the word in other areas. "I don't think there's any reason why this machine won't work on any smaller farm that has smaller tractors and whose operators can't justify spending a boatload of money on other VT machines," Milo says.

Contact: FARM SHOW Followup, S and M Farms, 160 South Newton Falls Rd., North Jackson, Ohio 44451 (ph 330 719-6106; www.sandmfarms.com; Miloghomes@cs.com).

Underground Animal Barrier

If buried hardware cloth and other barriers aren't keeping wild animals out or pets in, check out this commercial grade underground fence. It's easier to install, provides a more permanent solution, and is cost effective.

It's made of 15-in. long galvanized 4-ga. steel rods, explains Jarrett Goldstein, manager of customer service. And at 1 1/4-in. apart, the steel rods keep out most wild animals. The fencing also can be used around pens and kennels to keep digging pets in.

"Dig DeFence" is sold in 40-ft. kits (10 4-ft. sections) for $189.95 (plus shipping) that can be driven in the ground as deep as you need to go. Many customers use it like a skirting under buildings, for example, or to block holes between sheds.

Contact: FARM SHOW Followup, Wildlife Control Supplies, P.O. Box 538, East Granby, Conn. 06026 (ph 877 684-7262; www.wildlifecontrolcsupplies.com; admin@wildlifecontrolsupplies.com).

Underground animal barrier is made of 15-in. long, galvanized 4-ga. steel rods spaced 1 1/4 in. apart.

Dennis Schmenk uses his handy trailer crane to move spruce trees that he grows on his Ohio acreage. Crane spins manually in a 360-degree circle.

Simple 360º Trailer Crane

"It saves my back," says Dennis Schmenk about the handy trailer crane he built. He uses it to move spruce trees he grows and sells off his Ottawa, Ohio, acreage but adds that it would work for lifting and moving other things such as hay bales.

He built the single axle trailer with a steel frame and secured a wheel rim in the center. It is welded to an angle iron frame bolted to the trailer. A stub axle bolts to the rim to support a 2-in. steel pipe that Schmenk beefed up with angle iron and slid over the top. It's welded to a boom with a rail from an industrial plant, which allows the winch to slide in and out. A barn door track would also work, he says.

"The crane spins (manually) in a 360-degree circle," Schmenk says. "You can move the winch in to the base and push it out 6 ft. and swing it around wherever you want and raise it up to 5 ft. high with the winch control. Controls hang from the winch and move with the boom so it's always within reach."

Schmenk secures the winch's cable with chain in two places on the basket around the tree's root ball to move it from his field or warehouse to load it on the trailer then into a customer's truck or trailer. A 12-volt battery powers the winch to lift 30 to 40 trees before it needs to be charged.

The trees weigh about 120 lbs., so Schmenk says he didn't need a very big winch. With counterweight in the trailer, it could probably handle up to 400 lbs.

It's a simple, but effective piece of equipment, he says, for anyone who needs to move heavy items and wants to save a lot of backaches.

To protect the end nozzles on his spray boom, Darrell Snider screwed a 6-in. wide section of large dia., flexible pvc drainage pipe onto each end of the boom.

Pipe Protects Nozzles At End Of Spray Boom

"I bought a 3-pt. mounted, 300-gal. sprayer equipped with a 50-ft. boom designed to fold forward against both sides of the tractor," says Darrell Snider, Lawrenceburg, Tenn. "The first time I tried using the sprayer I crossed a ditch and accidentally broke a nozzle at the end of the boom. I've seen other sprayers fitted with wheels at the boom ends, but they weren't available for my sprayer."

To solve the problem, Snider screwed a 6-in. wide section of large dia., flexible pvc drainage pipe onto each end of the boom, just beyond the last nozzle. He ran 2 long self-tightening screws in from the top through the pipe and into the boom.

"The pipe keeps the nozzles from contacting the ground and extends just below the bottom of the nozzle, yet it doesn't affect the nozzle's spray pattern. I already had the pipe so it was a simple, inexpensive solution to the problem," says Snider.

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