## "Owner's Report" On Do-It-Yourself Tile Plows

## Continued from previous page

"It's already saved us more in tile installation costs than we paid for it," he says.

"We pulled it with a rented Caterpillar Challenger 75 the first spring. We had a lot of rain and most of the fields where we used it were muddy. If it was even a little slick on top, we had to use a second tractor just to help steer the tracked tractor," he says.

"It's a little difficult to pull the plow through our heavy, waxy subsoil. We're usually pulling tile in at 30 to 36 in. deep. If you're going to go deeper than that in this type of soil, it almost always takes a second tractor," he says.

The problem is traction. "Most farm tractors just won't go slow enough to pull the plow without spinning," he says.

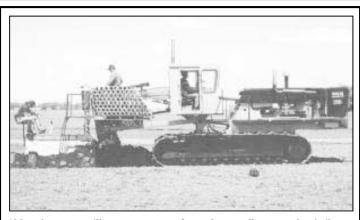
Bob and his co-owners shopped extensively before deciding on the Johnson plow. "We wanted a pull-type plow, rather than a mounted one. This one looked as heavy as any of the others. At the time we bought it, there were some plows on the market we

thought were too light and wouldn't be able to stand the strain in this soil." he says.

Another selling point was that the plow and boot leave a V-shaped bottom in the trench to lay the tile into. "This helps support the tile from the bottom, so there's less chance of it collapsing," he says.

Bob says while they've used mostly 4-in. tile, the machine can put in up to 6-in. tile. "Usually, 6-in. mains are big enough for us, so we can do the entire job with this one machine," he says.

The only change Bob might make to the plow is a bigger hydraulic cylinder. "If you're putting tile in deep on hard ground, a heavier, longer cylinder might be a little more responsive and help keep it on grade better," he says. "But you have to be running really deep before you notice this. And I think part of the problem is we have to throttle the engine back to slow down the wheels, which means the hydraulic pump slows down, too. If we could run slower at a higher engine speed, this probably wouldn't be a problem.



Although concrete tiling costs more up front, the overall cost can be similar to plastic if you factor in the performance of concrete versus plastic, says Hector Tile.

## They Use Concrete Tile Instead Of Plastic

Concrete drainage tile costs about twice as much per foot to install as plastic because it's more costly to produce.

But, according to the Hector Tile Co., Hector, Minn., concrete tile is actually as economical as plastic if you're hiring the job done.

Hector Tile recently had one of its tiling crews set up a comparison test. The plot was located on a relatively flat field with about 18 in. of topsoil underlain by clay. They installed both plastic and concrete lines on the field, 650 ft. long and 50 ft. apart, and then measured water coming out of both. They used the same machine, a Wolfe Drainage Plow, to install both materials, at a depth of about 4 ft. on a 0.2% grade.

How did the tile lines perform? On the average, the concrete lines had 2.27 times more water flowing at the outlet than the plastic lines

"We concluded that if the concrete lines draw more than twice as much water from the soil, we can double the spacing for concrete and still do as good a job as with plastic," says Dwight Anderson, with Hector Tile. "If 4-in. concrete installed costs twice as much per foot as 4-in. plastic installed, and we can get by with half as much concrete, then the cost is pretty much the same in the end."

Anderson says the larger the tile line,

the less difference there is between plastic and concrete per foot. He suggests using concrete for 6-in. or larger tile mains, even if the laterals are plastic, since concrete is more rigid and less likely to collapse.

While most commercial tilers who install concrete or clay pipe use trenchers, Hector Tile uses a tile plow that is similar to the smaller tile plows used for plastic pipe.

The self-propelled Wolfe Drainage Plow lays concrete tile in place as the plow raises the soil. No backfilling is necessary. The machine requires several people to operate. One works the controls. Two keep the 8-ft. long boot filled with sections of concrete tile. The boot itself is wide enough that one worker can watch the tile drop into place and, at the same time, mark any areas that might not be laid correctly because of rocks, etc., for immediate repair.

"This is not a machine an individual farmer could justify owning, but it does an excellent job of laying concrete tile lines with very little soil disturbance," Anderson says

Contact: FARM SHOW Followup, Hector Tile Co., Inc., Rt. 1, Box A3, Hector, Minn. 55342 (ph 320 848-2646; fax: 320 848-2573).

## Where To Buy A Tiling Plow

Waynes, Inc. P.O. Box 187 Morgan, MN 56266 Ph 507 249-3176 Fax 507 249-3146

Farm Drainage Plows 909 4th St. NW Waverly, IA 50677 Ph 319 352-3911

Persall Mini-Tiler RR1 Wilsonville, ON Ph 519 443-4181

Soil Max Gold Digger (Persall Mini-Tiler in U.S.) 1195W 660N Brazil, Indiana 47834 Ph 888 764-5629 or 812 442-5096 Fax 812 442-6034 Mauer Grade Master Tile Plow 1300 38th Ave. West Spencer, IA 51301 Ph 712 262-2992 Fax 712 262-1022 www.mauermfg.com

Winthrop Welding Works, Inc. P.O. Box 87 Winthrop, Iowa 50642 Ph 319 935-3385 Fax 319 935-3747

Liebrecht Mfg. 17771 Rd. H-13 Continental, Ohio 45831 Ph 419 596-3501 Fax 419 596-4401

Johnson Drainage Plows 29272 220th Street Clarksville, IA 50619 Ph 319 885-4496





Two of the newest tile plows on the market are the Liebrecht plow (above left) and the Winthrop Welding Works plow (right). Both are trailing models that will lay any size tile from 3 to 8 in. in diameter.

"Otherwise, I can't think of anything drastic I would change about the plow. It does the job, hasn't fallen apart yet and doesn't look like it will. We're putting tile in for a cost of about \$0.20 a foot, which is about \$0.25 less than we'd pay a tiling contractor to install the same tile. The machine has already paid for itself and we're only about half done with the job we bought it to do."

**Tim Cooke, Drakesboro, Kentucky:** "It pulls easy, it's easy to handle, and it puts the tile in on grade. I don't know what else you

"We're saving right at \$500 an acre with this plow."

could ask for," says Tim of his Soil Max Gold Digger tile plow.

So far, he's installed 150,000 ft. of tile with his 3-pt. mounted machine. "We can go up to 5 ft. deep behind our Massey Ferguson 4900 without having to pre-rip. We hit a rock once that stopped the tractor dead in its tracks, but it didn't damage the plow at all. It has to be well-built to take that," he says.

Tim farms a lot of river bottom land and has between 1,000 and 2,000 acres in row crops every year on his cattle-crop Two Rivers Farms

"We still have fewer than 400 acres tiled now. My plan is to install tile on all the bottom land," he says.

"It would cost us around \$650 an acre if we hired a contractor to install tile for us. We're saving right at \$500 an acre with this plow. That includes the cost of the plow, tile and the tractor. It doesn't include labor, but we're doing it with labor I'd be paying for anyway."

Tim considered four different makes of plows before buying the Gold Digger. "This one is built with titanium steel. It's slicker, neater, and not as bulky as the others I looked at. I think it slides through the ground better, too. And with that 6-ft. shoe, it's almost impossible to get it off grade," he says.

He likes the support he's received from the company, too. "I have no complaints about the machine or the service. The company has been great. They came out and helped us for two days while we were getting it set up and running," he says.

He figures he still has a million feet of tile to go on his farm.

**Bob Regennitter, Atalissa, Iowa:** Bob has installed 43,000 ft. of tile since he bought his Soil Max Gold Digger last April.

"The main reason I bought this plow was the way it maintained level. The laser controls the point of the plow by angling the shoe rather than lifting the plow. It's a better way to maintain grade, I think," he says.

Regennitter farms 1,600 acres, most of which has some tile on it. He's pattern-tiled 20 acres and has made a lot of runs to drain wet spots

"My GPS showed me we needed better drainage in some places. We were seeing corn yields drop 50 bu. where we needed tile. I've got a lot more work planned this fall and several neighbors have contacted me about doing custom work for them," he says. "We're replacing shallow tile that was hand laid years ago, or in other cases, just supplementing the tile that's there."

Continued on next page