New Tillage Tool Features 5-Sided Disk Blades

By Bill Gergen, Senior Editor

"I came up with the idea because I wanted to switch to vertical tillage, but I couldn't find anything on the market I liked," says Henry Falk, Effingham, Kan., who went to the shop and came up with innovative new 5-sided disk blades that he says work better than any other discs on the market.

He installed a set of his patented blades on a Case IH 496 28-ft. disk. He calls the new tillage tool a Rolling Spader because of the way the blade points spade up a little soil onto residue each time they come around. Small cavities made by the points of the blades reduce erosion and help to boost water infiltration. The flat sides on the 5-sided blades push crop residue down into the soil surface. Only the points penetrate the soil, to a depth of about 2 in. or less.

"Most vertical tillage machines are equipped with round fluted blades, which can damage soil structure and take a lot more power to pull. My discs only slice a bit of the soil surface yet have better results.

"I like to use the Spader in the fall on corn and soybean stubble after wheat or rye seed is broadcast as a cover crop, along with a fall fertilizer application. By the following spring it's amazing how nice the ground is to plant in."

Speed isn't a factor, he says. "I've found that whether I pull it at 2 or 12 mph it does the same job. Tillage tools with fluted coulters require a lot of weight to push the blades into the ground, especially when they're angled. My blades are never all in the ground at the same time, which makes a huge difference."

The blades can only be mounted on disks equipped with square axles so that the implement will run smooth without a lot of vibration. "Converting to a square axle isn't hard to do," says Falk.

Two different 5-sided blades are available. One blade is designed for Case IH disks and sells for $55 apiece plus S&H. The other is for Deere, and other disk brands, and sells for $45 plus S&H.

You can see a video of the machine in action at www.farmshow.com.

Contact: FARM SHOW Followup, Henry J. Falk, Vertical-Till Farms L.L.C., 2079 Edwards Rd., Effingham, Kansas 66023 (ph 913 370-0502).

The flat sides on Falk's 5-sided disk blades push crop residue down into the soil surface. Only the points penetrate the soil.

Falk installed a set of the blades on his Case IH 496 28-ft. disk and calls it a Rolling Spader.

All-Electric 1/4 Scale JD 8020

By Fred Hendricks

Gene Gregory wouldn't fit on his scale model Deere 8020, and he doesn't have to, thanks to remote control. The electric motor-powered tractor looks, moves and even sounds much like the real thing.

"I added a sound track to replicate a real diesel engine," says Gregory.

Gregory has plenty of experience with full-size tractors, having restored 12 of them, including a rare 1923 Model 23D Deere. While restoration was fun, he was looking for a bigger challenge.

"Scale versions of the old tractors started popping up at shows," says Gregory. "Many were big and bulky, some powered by gas engines. I wanted to build one a little different. I decided to try my hand at building one powered by a radio-controlled electric motor."

The entire tractor is aluminum with the exception of the engine block, which is made out of wood. Even the support components attached to the engine block are aluminum and Gregory cast them himself.

"I made wood carvings of each casting and then used the wood for a reverse mold," he says. "Once the aluminum was poured and cooled, it had to be ground and polished."

Gregory spring-loaded the 3-pt. hitch for authentic movement. Front and rear lights all function, and the front and rear tires are even inflatable. In fact, the scale model was designed based on the rear tires' 14 by 450-6 size, though it's close to a 1:4 scale.

While most models are scaled down from the full-size version, Gregory had no access to one. Instead, he scaled his up from a 1:16 scale die-cast Deere 8020 that he purchased just for the measurements. Knowing scale tires would be the most difficult component to find, he adapted the measurements accordingly.

"Scaling up works just as well," he explains. "Once I found the wheels and tires, I began drawing to fit everything to them."

Batteries are mounted inside the model's fuel tank with a light switch where batteries would go in the full-size version. Servo and electronics are mounted in the rear of the tractor. The grill emblem was found on a belt buckle.

Gregory estimates he spent more than 500 hrs. on the tractor. Using aluminum and wood instead of steel reduced the near quarter scale tractor's weight considerably.

Unlike its full size cousin, Gregory's model is one-wheel drive. "I mounted two electric motors and gearing to the front wheels," he explains. "At first the tractor handled a little awkwardly when turning, due to the lack of a differential. So I disconnected the front left wheel from the drivetrain. It now operates very smoothly, both in forward and reverse."

Gregory requested that his address remain confidential. However, the writer will forward questions.

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Gene Gregory's electric motor-powered, 1/4-scale Deere 8020 tractor looks, moves and sounds much like the real thing.

Gregory estimates he spent more than 500 hrs. on the tractor (left). He spring-loaded the 3-pt. hitch for authentic movement.

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