Moveable Electric Fence Made From Wheel Line Irrigator

By Bill Gergen, Senior Editor

David Jones came up with a new use for his wheel line irrigator.

Jones, who operates a ranch near Mountain View, Alberta, wanted to practice rotational grazing on 80 acres of hay ground, but he didn't want the hassle of moving electric fences all the time. So he decided to use his wheel line irrigator as a portable electric fence. The entire irrigator, including the wheels, pipe and sprinkler heads, is electrified.

"We used it for the first time last fall and again this spring and were amazed at how well it works," says Jones. "We move the wheel line about 40 ft. at a time to give cows access to fresh hay. Once the move is complete, we can also irrigate. We move the wheel line twice a day, covering a total distance of about 80 ft. It's a simple system that's way less time consuming than having to pull up electric fence posts and wires and put them back in again."

The entire 80-acre hay field is surrounded by a barbed wire fence. To electrify the irrigator, a large fence charger is hooked up to a barbed wire that attaches to one end of the irrigator. The bottom half of each metal wheel on the irrigator is covered with a layer of thick plastic that insulates the irrigator from the ground.

To move the unit, Jones closes off the valve on a main line that runs alongside the field which allows the water to drain from the system (a valve is located in the mainline every 40 ft.). Then he unhooks the fence charger, starts the engine (a mover unit powered by a small gas engine is located at the center of the wheel line), and drives the wheel line 40 ft. down the field to the next mainline valve position where he makes sure the plastic-covered part of the wheels are against the ground. Then he reattaches the fence charger to the irrigator. When he wants to irrigate, he detaches the fence charger and reconnects to the water source.

After the wheel line has covered the entire field, he then reverses the line and travels back to the original starting point where the system is ready for the next irrigation cycle.

"Cattle get shocked when they touch any part of the wheel line and won't bother it again," says Jones. At first we tried attaching electric fence wire along the full length of the irrigator, but it didn't work well because the cattle tended to rub against the sprinkler heads and drain valves and break them off. Also, sometimes the wires got tangled up in the wheels."

To make the plastic wheel covers he cut up a big section of 1/8-in. thick plastic into 18-in. wide by 90-in. long strips, and then duct-taped them to each wheel.

In the photo, the engine that drives the wheel line irrigator is out of view behind a hill. "This field is hilly enough to provide the wheel line with 65 lbs. of gravity pressure, so we don't even have to start up a pump," says Jones.

David Jones wanted to practice rotational grazing without having to move electric fences all the time, so he converted his wheel line irrigator into a portable electric fence. The entire irrigator is electrified.

The photo also shows 4 1/2-ft. long plastic T-posts spaced about 100 ft. apart at both ends of the wheel line. The T-posts are pounded into the ground and attached with wire to the irrigator pipe.

"We use the irrigator as a stationary electrified fence in winter, which is usually when we get a lot of strong winds in our area," explains Jones. "The T-posts stabilize the wheel line and keep it from moving around. We remove the posts in the spring."

"I'd also like to thank my wife Trina and daughters Ruth and Serenity for believing in my ideas and making them a reality," says Jones.

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Tractor "Fleet" Eliminates Need To Change Implements

Cecil Clark, Sr., Crowley, La., worked as a field rep for Massey Ferguson for 25 years. When he retired 20 years ago he started collecting MF tractors. His collection now includes 10 Massey Fergusons, as well as a Kioti 4-WD loader tractor. They range from 27 to 40 hp.

Clark is 83 years old. He and his wife love gardening and yard work. To save time and effort each tractor is fitted with a different 3-pt. implement. His daughter, Stephanie, recently sent FARM SHOW photos of the tractors and one of the implements - a home-built "packer-dibbler".

"I came up with the idea because at my age I don't want to spend a lot of time switching implements. I can get off one tractor and onto another one very quickly. It eliminates a lot of hassle," says Clark.

Their 1/2-acre garden has 222-ft. long rows. "We grow everything imaginable but specialize in legumes like butter beans, peas, and snap beans," says Clark. "We share most of the bounty of our harvest with friends, family and neighbors."

The implements include a rotary mower, hipping ridger, 2-row subsoiler, 5-ft. rotary tiller, home-built roller-dibbler, finishing mower, 1-row planter, rotary cutter, 2-bottom moldboard plow, and a single shank subsoiler that converts to a 1-bottom "middle buster".

The roller-dibbler measures 3 1/2 ft. wide and is used to make holes in the ground for transplanting bulbs and seedlings. Clark built it using the frame of a 3-pt. mounted, forklift-type material carrier. A clod rake equipped with rake tines on front moves clods off to the sides of the rows. The tines, which are made from 1/2-in. rebar and spaced 8 in. apart, are vertically adjustable.

Behind the clod rake is a roller made from 12-in. dia., thick-walled pipeline pipe. It's closed up on both ends and perfectly balanced. Clark uses a 1/2-in. flush-mount allen plug at one end of the roller to fill it with used motor oil for ballast.

The roller's axle is mounted on regreasable, self-aligning pillow block bearings. Metal "cut-off strips" made from angle iron and 1/2-in. rebar are mounted in front and back of the roller and prevent "tacky" soil from sticking to it. The strips can be horizontally adjusted to within 1/4 in. of the roller.

When he retired 20 years ago, Cecil Clark started collecting Massey Ferguson tractors. At 83 he now has 10 of them as well as a Kioti, each fitted with a different 3-pt. implement. "It's great not having to spend time switching implements," he says.

Mounted behind the roller are 4 spiked hard plastic wheels that can be spaced anywhere from 3 to 6 in. apart. The spiked wheels were designed for use in pairs on a commercial walk-behind dibbler equipped with a push handle and frame. Clark bought 2 of the dibblers from Two Bad Cats, in Clarendon, Vt. (ph 802 775-8233; pete@twobadcatsllc.com) which sells the dibblers unassembled. He removed the push handle and frame from each unit and screwed the spikes onto the wheels. Then he inserted a metal rod through all of the wheels to serve as an axle. The rod is attached to angle iron extensions that Clark added on both sides to the back of the material carrier.

"I used my home-built packer-dibbler for the first time last spring and it worked great," says Clark. "To plant my garden, first I make a pass with a hipping ridger that has 2 angled gangs of discs on a toolbar, which make ridges. Then I make a pass with the roller-dibbler to flatten the ridge and then punch holes into it. I broadcast seed by hand into the holes and then make another pass with the roller-dibbler to pack the seed into the soil.

"I control the depth of the dibbler wheels by shortening or lengthening the 3-pt.'s top link. If I want I can raise the wheels all the way off the ground and use the machine only as a roller. Any dibbler holes that I don't use for transplants serve as a mini-reservoir for fertilizer and also conserve moisture after a rain," says Clark.

Clark designed and built this "packer-dibbler", which is used to make holes in the ground for transplanting bulbs and seedlings.

The gap between the roller and dibbler wheels is covered by part of the material carrier's floor in order to keep dirt from building up.

Clark says sharing his garden produce with others has been very rewarding. "I've been using a grist mill to grind the corn we grow into meal for more than 20 years," he says. "I've probably made 1 to 1 1/2 tons of corn meal during that time but have never sold a pound of it because I give it all away."

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