

Donkeys On Thistle Patrol

By Dee Goerge

Chad Moyer, Deer Creek, Minn., has a giant thistle problem but he's gained some control over it, thanks to his secret weapons - a trio of donkeys named Jack, Eeyore and The Recruit.

Jack, especially, loves the thistle's purple flowers. He walks through the pasture, nipping them off like a person plucking wild raspberries on a hike through the woods.

"The impact (on thistle growth) has been huge," Moyer says, whose donkey experiment was the subject of a University of Minnesota study. Research data showed that plumeless thistle blossoms were reduced by 74 percent in 2003 and 87 percent in 2004, compared to pastures where only cattle grazed.

Since thistles spread by seeds and there are thousands of seeds in each flower blossom, the idea is to eliminate the blossoms and eventually the biennial plants will die.

The donkey idea came up at a University of Minnesota presentation on the best herbicides to kill thistles, explains Vince Crary, local extension educator for Otter Tail County. An northern Minnesota beef producer mentioned that he had donkeys with his herd to protect newborn calves from timber wolves. As a side benefit he observed that donkeys ate thistle blossoms; thistle plant numbers decreased.

When Moyer, a radio agriculture reporter, learned about the idea, he took a personal interest. He'd purchased a 40-acre farm in 2000. Uncultivated for more than a decade, the pasture land was filled with plumeless thistles. Mowing the thistles only increased the problem. He was reluctant to use herbicides due to the cost and because of a nearby stream.

In 2003, Moyer and researchers set up three 3-acre paddocks to graze two cow-calf pairs as controls. Three other paddocks were fenced off to graze one donkey and one cow-calf pair. Moyer purchased the male donkeys in Nebraska from the Bureau of Land Management's Adopt a Horse and Burro Program. Cost per donkey came to about \$125



"Donkeys love to eat thistle flowers," says Chad Moyer, who uses donkeys to control giant thistles in his pasture.

including transportation, worming, vaccination and halters. Requiring only one small bale of hay per day to feed the trio for half the year, and with a life expectancy up to 35 years, Moyer thinks the 18-year-old donkeys were a good investment.

The official trial ends this fall, when researchers make their final blossom count. Moyer plans to keep his donkeys and tweak the fenced areas. While Jack seems to prefer the blossoms, the other donkeys tend to eat grass first. He may move the cattle through an area first and follow up with the donkeys.

Crory noted that Moyer will likely need to use herbicides, especially in the control area. Another trial with an overwhelming number of thistles was cut short because the donkeys simply couldn't get ahead of the blossoms.

Moyer is hopeful that once he gets the thistles under control, donkeys will maintain them. He would love to have a crew of donkeys with Jack's insatiable appetite for thistles.

Unfortunately, Jack can't help with that. He's been neutered.

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State-Of-The-Art Liquid Fertilizer Cart

After looking at the commercial liquid fertilizer carts on the market, Mitch Kolanko decided to build his own heavy duty rig. It works so well that he's started building them for others.

"It's built strong and simple and is overbuilt in every aspect, yet it looks great," says Kolanko. "Comparing it to the other liquid fertilizer carts on the market is like comparing an old beat-up farm truck to a Corvette or Porsche."

The cart is designed to be pulled behind an air seeder and is equipped with a 2,400-gal. tank and a fifth wheel hitch. It precisely meters the required amount of fertilizer and delivers it by hose to a distribution kit (not supplied) on the air seeder.

The cart rides on big 28L by 26 rear tires with 21.5 by 16.1 tires on front. It's equipped with a ground-driven John Blue metering pump. A portable Honda gas engine is used to fill the tank. Quick couplers make hook-ups easy.

The frame is built from 8 by 6-in. by 1/4-in. thick wall steel tubing. The rear axle is equipped with 16,000-lb. wheel hubs and the front wheels have 10,000-lb. hubs.

"It's practically bullet proof," says Kolanko. "I did a lot of research before I built it. It's well balanced and has a very low profile so there's almost no chance it will tip over. The big tires make it easy to pull and result in very little compaction. Under normal



"It's built strong and simple. It's overbuilt in every aspect, yet it looks great!" says Mitch Kolanko about his home-built liquid fertilizer cart.

ground conditions it requires a 40 to 50 hp tractor.

"To convert the unit for highway transport, all you do is pull one pin to disengage the gear drive from the pump. There's no need to remove chains or mess with greasy tighteners."

Sells for \$23,500 (U.S.). Kolanko says he also plans to soon offer a 3,000-gal. model, as well as 4,800-gal. and 6,000-gal. twin tank models.

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James Boyd used parts from a garage door opener to come up with this low-cost grade sensor for his backhoe. He uses it when installing field tile.

"Poor Man's" Grade Sensor

"I used parts from a garage door opener to come up with a low-cost grade sensor for my backhoe, which I use to install field tile. It attaches to the boom and lets me see what grade I'm digging at without ever having to leave the cab," says James Boyd, Galveston, Ind.

The grade sensor attachment consists of a 7-ft. length of garage door opener track that attaches to the backhoe's boom. A laser sensor attaches to a mounting plate on the track. At the top of the boom, the drive gear from the original garage door opener is coupled to a 12-volt, 4 1/2 rpm electric motor. Boyd wired the motor to a switchbox that mounts in the backhoe's cab. It lets him run the motor to move the sensor up or down as needed.

"It eliminates the need to get out of the cab, or to hire someone to check the grade for me," says Boyd. "All I have to do is set my reference when I start. Then as I make progress in digging the ditch, I move the sensor accordingly so that the grade comes out right where I want it," says Boyd. "I spent only about

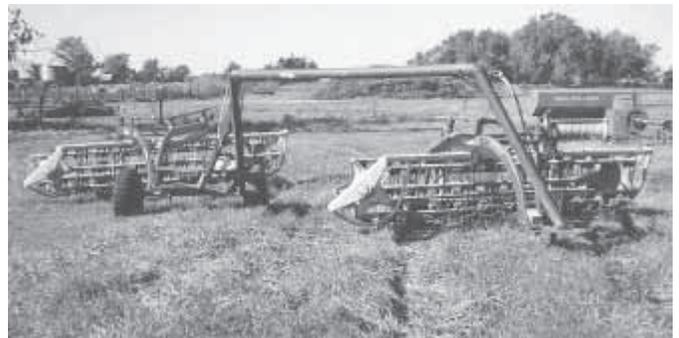
\$30 on parts. The rest came from my pile of scrap metal.

"I put a piece of oak behind a pointer that's welded to the mounting plate and put 1-in. markers on it so I can see how much I move the sensor."

Boyd says cost was the motivation for coming up with his own automatic grade checking system. "I spent a total of about \$2,500 for this laser system. I need to have the boom straight up and down for it to be accurate, but that hasn't been a problem. There are commercial systems that use sensors on the boom and provide a display in the cab. But they sell for about \$6,000, and I couldn't justify the cost.

"I also made a mount so I can use it on my bulldozer blade, and know for sure that I'm running proper grade."

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Kutzler built this gooseneck hitch and two-wheeled rear dolly. "It lets me pull two 9-ft. rakes at a time and cover twice as much ground at virtually no extra cost," he says.

Home-Built "Double Sided Rake"

"I always thought it was foolish to use an expensive high-powered tractor just to pull an 8-ft. hay rake. So I built a gooseneck hitch and a two-wheeled rear dolly. It lets me pull two standard 9-ft. rakes at a time and cover twice as much ground with virtually no extra cost," says Buzz Kutzler.

The Huron, S. Dak. farmer uses the hitch to pull two New Holland model 258 rakes.

He made the gooseneck hitch by welding together sections of 4-in. dia. tubing off an old swather. He used the front wheels and axle off an old pickup to make a dolly that carries the rear rake. A hydraulic cylinder is used to swing the rear rake either to the left or right. By changing the position of a pin, he can move the rear rake in line with the

front rake for road transport.

"The two rakes cover 16 ft. at a time and let me cover a field so fast it's unbelievable," says Kutzler. "I built it about ten years ago and use it a lot. It makes it fun to go to the field. In a heavy hay crop I can set both rakes to leave a swath down the middle. Or, if it's a light crop, I can angle both rakes to the side and then come back from the opposite direction to make a double swath that covers a 32-ft. wide area. If I get too close to a fence, I can automatically swing the rear rake away from the fence. And if I want, I can unhook the rakes and use them separately."

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