



Bart Spear's wagon-mounted DewEze bale handler makes it easy to feed out 2 big bales at a time. He uses a single team of horses to pull it.

Horse-Drawn Big Bale Wagon

Bart Spear can feed hay to 1,000 head of cattle in 2 1/2 to 3 hrs. using a single team of horses. His wagon-mounted DewEze bale handler makes it easy to haul out 2 big bales at a time.

"I can feed them in 1 1/2 to 2 hrs. with my big feed wagon and tractor," explains Spear. "But when I have time, I like to use the horses. I enjoy it, and the horses enjoy a good workout. This past winter I used them every day for a month."

Installing the bale handler was a relatively simple process. He spent only about 2 1/2 hrs. to put the horse-drawn system together. The vintage DewEze mechanism was the first unit the company introduced and was designed for mounting in an existing pickup bed.

"It sat in my neighbors' weed pile for years until I put it to use," says Spear. "I beefed up the stress points in the wagon with 3-in. angle and channel iron for added stability."

Mounting arms for the DewEze attach with just 4 bolts, making it easy to remove. The arms for the rear-mount unit extend forward past the center of the wagon. This carries the

weight of the loaded bales forward as well.

"The wagon handles well," says Spear. "I've taken the horses with a loaded wagon up some pretty steep hills."

To power the electric-over-hydraulic system, Spear added a heavy-duty truck battery to the standard pickup battery used with a DewEze. That gives him plenty of power to get the job done each day.

"When I'm done feeding, I hook up a battery charger to both batteries so they are ready to go the next morning," says Spear. "It really speeds things up."

Spear reports the system has been trouble free and is a pleasure for someone who likes working with horses. "I grew up around teams as my dad always had some," says Spear. "He is in his 80's now, and he thinks the bale wagon is awful neat."

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He Grows Food In His Backyard Pool

Dennis McClung's urban "farm" in Mesa, Arizona, began with an old in-ground swimming pool.

"When we bought our house, we loved the location and knew we wanted to grow food, but we had a limited space and budget," McClung explains. A big area of the lot was taken up by a pool that required \$10,000 of repairs. Instead, McClung turned it into a hoop house to create a greenhouse.

It quickly grew into much more than that. Tilapia fish grow in the deep end, which is filled with water. That water feeds into aquaponic growing beds and containers in the shallow end.

"The nice thing about the pool is the plaster walls. They make a wonderful pond and don't throw off the pH. They are really built well, with a good inside structure that holds water," McClung says.

Copying nature, he added pond plants such as duckweed to filter the water and feed ducks and chickens. The pond snails that came with the plants add calcium and help control pond sludge.

With only 9 in. of annual rain, water is precious, so the pool is also valuable as a containment system for water that drains off the house roof and carport.

"We capture over 10,000 gal. of water a year," McClung says. In addition to the vegetables, he grows more than 40 fruit trees, including bananas, on his city lot.

Since he started with the hoop house in 2009, McClung has continually added to his miniature self-sufficient ecosystem, which includes solar power, water conservation



Dennis McClung turned an old in-ground swimming pool into this hoop-style greenhouse.

and thermal mass protection from the coldest days in winter. He grows about 40 percent of the family's food, including sweetener from sugar cane and milk from dairy goats.

When others noticed, he started sharing his ideas and gradually built up a network of 1,200 people who show up in groups of 40 to 60 to set up growing systems for members.

McClung started a nonprofit called Garden Pool, with the mission of continuing research and education, into home grown food with ponds. "The pond is important because that's where all the nutrients are produced. That's where the rain water is stored," McClung says.

For people interested in setting up their own systems, he suggests checking out the resources and viewing videos on the Garden Pool website and YouTube. McClung also designs systems for customers and shares many of his ideas in a book, "The Garden Pool", available for \$40.

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Terry Jacob's road grader has a 12-ft. permanent magnet mounted behind the blade and separate from it.

Mobile Magnets Collect Scrap Metal

Whether attached to his road grader or hung on a trailer and pulled behind an ATV, tractor or truck, Terry Jacob's mobile magnets make it easy to pick up problem scrap metal.

"I've got 600 to 700 lbs. of scrap metal, including nails and other small bits of steel, wrenches, roller chain and more, that I've picked up from area roads," says Jacob. "You would be amazed at the amount of metal on a gravel road. I still get as much with each pass as I did when I did it the first time a year and a half ago."

Jacob is a semi-retired farmer who does road maintenance for two local south-central Kansas townships and a large drainage district.

His road grader has a 16-ft. blade with a 12-ft. permanent magnet mounted behind the blade, but separate from it. The magnet hangs from angle iron brackets attached to the grader frame. It can be raised or lowered in 1/2-in. increments, but is normally carried 2 to 3 in. off the roadbed. It is always visible to the operator. "The magnet stays centered on the road, even when the blade rotates left or right," explains Jacob.

The magnet mounts inside an aluminum housing. Collected metal is held against the housing. A closed circuit camera mounted behind the magnet lets the operator see what has been collected. Cleaning it off is a matter of pulling a lever at one end. Electric actuators for remote dumping of metal are optional.

"The metal dumps to the ground, and I use a hand magnet about 3 ft. long to pick up the scrap and dump it into a 5-gal. bucket," says Jacob.

He has demonstrated his grader magnet to other townships and offered to build the unit for \$4,500. "I get lots of positive feedback, but operators don't want to mess with it," he says.

Jacob also has a pull-type magnet that can be used around construction sites, landfills or farm yards. His prototype is a 10-ft. wide unit with two 5-ft. magnets on a folding frame. It can be pulled behind an ATV or other small vehicle. It is designed to be used at up to 5 to 6 mph with the magnets within inches of the ground.

The wheels swivel freely, making it easy to collapse the 10-ft. wide frame to 4 ft.



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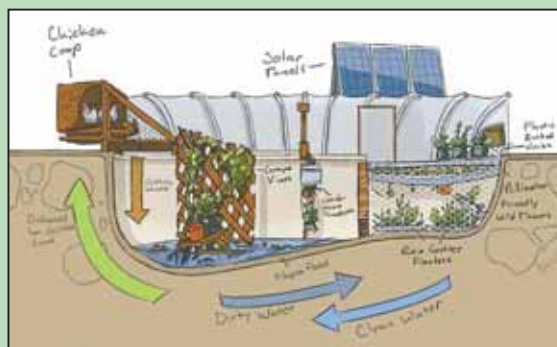
wide by 10 ft. long to pass through a gate or narrow bridge or for storage. Simply unpin the magnet cross frame from the tongue and pull forward. Though not designed for trailing at road speed, it is easily loaded on a trailer or truck bed.

"One wheel can be locked for transit or for use on a hillside or ditch bank," says Jacob. "The prototype is non-electric with an aluminum dump mechanism, like the grader. However, it is on a mechanical linkage, not actuators. Just pull a lever, and it dumps the metal."

Jacob expects the final price to be around \$3,500 for the 10-ft. wide version. He says the magnets come in 4, 5 and 7-ft. increments and are available with electric actuators.

You can see a video of the folding magnet cart at www.farmshow.com.

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