



Dave Boyt converted discarded pallets into this inexpensive hay feeder for his horses. The design minimizes waste, he says.



He used 5 standard size pallets and 1 by 6's and 2 by 4's taken from other pallets.

## Discarded Pallets Used To Make Nifty Hay Feeder

DIY writer for *The New Pioneer* magazine, Dave Boyt, came up with a simple hay feeder design built with pallets that prevents hay from being wasted by his two horses.

"Part of the challenge of the design was to build a sturdy feeder by cutting the pallets as little as possible," Boyt says. He used five standard size pallets for his feeder, plus additional 1 by 6's and 2 by 4's taken from other pallets.

The pallets don't have to be perfect, but Boyt emphasizes the importance of removing any nails that protrude or are loose.

Pallets will eventually fall apart and need

to be replaced, he adds, so it's important to regularly check the area for nails and decayed wood and to build a new feeder when necessary. When possible, use pallets made of oak wood, which will last longer than soft pine or other wood pallets.

To start, Boyt determined the height he wanted for the feeder so that his horses could reach over the top. He created a base 24 in. tall for Trooper and Cody (15-hands tall quarter horses), by screwing 2 by 4's on the sidewall pallets to support a horizontal pallet, securing everything with 4-in. deck screws.

Four 1 by 6's are screwed into the sidewalls

at an angle, with about 6 in. between them at the base to support the pallets. Once the pallets are in place, four more 1 by 6's are added inside to secure them. Boyt made sure to use screws that didn't protrude.

He also used a cordless reciprocating saw to cut off excess ends of the boards and to remove a few boards in the angled pallets so that hay could be pulled from the sides, though the horses prefer to eat from the top.

The feeder is solid enough to be free-standing and worked well over its first winter, Boyt says.

"I don't throw a whole bale in. I pull the

hay apart so they can get at it more easily," he notes.

With different size pallets, feeders could be adapted for other livestock like sheep or cattle, Boyt adds. Pallet feeders are cheap and easy to build so they are a good option even if they have to be replaced after 3 or 4 years.

He's already figured out an improvement for his next feeder.

"At the bottom of the feeder, I would add a place for grain or a salt block," he says.

Contact: Dave Boyt, 20632 Parrot Rd., Neosho, Mo. 64850 (ph 417 455-2698; dboyt.42@gmail.com).

## Side-Mounted Granular Fertilizer Applicator

"This photo shows the one-row, battery-operated granular fertilizer applicator I made out of an old 50-lb. metal barrel. I use it to fertilize garden crops while digging a seed trench at the same time," says Mack Myers, Kirbyville, Texas.

Myers side-mounted the applicator on his Farmall 140 27 hp. tractor, which is equipped with a hydraulic-operated, 6-in. wide belly-mounted plow to dig the seed trench. The barrel sets on a metal bracket bolted to the side of the tractor. Myers screwed a homemade metal ring onto the barrel and then attached a metal box to one side of the ring. The box protects a 12-volt motor and gearbox unit, with the motor wired to the tractor's battery.

He cut a hole in the bottom of the barrel, then installed a homemade knife gate valve to adjust the flow. The motor drives a shaft connected to a foot bearing, which causes a pair of paddles to agitate the fertilizer. Opening the valve causes the fertilizer to fall

into a vacuum cleaner hose, which is attached to a metal fertilizer tube that inserts the fertilizer about 4 in. deep and 2 in. to the side of the row. Myers uses a switch mounted next to the steering wheel to engage the motor.

"It works much better than I ever thought it would," says Myers. "I turn the switch on to open the valve, and when I get to the end of the row I turn it off to avoid wasting fertilizer. It's built mostly from scrap material so it didn't cost much to build. The motor and gearbox are off an old camper slide-out. I bought the barrel, which was filled with paint brushes and rollers, for \$13 at an auction. If I want, I can also use it to sidedress fertilizer after the plants start growing.

"I use it on my 2-acre garden where I grow crops of sweet corn, beans, squash, and peas. I came up with the idea because I'm almost 72 years old and got tired of walking on plowed ground while carrying a bucket of fertilizer. Last spring a friend filled the barrel for me every time it ran empty, so I didn't even have



One-row, battery-operated granular fertilizer applicator on Farmall fertilizes garden crops, while a seed trench is dug at the same time.

to get off the tractor."

Myers says it only takes about 5 min. to put the bracket on, and by unbolting the ring he can quickly remove the motor and gearbox for access to the paddles and gate valve. He mounted a battery bracket on the other side of the tractor in case he ever needs to use the tractor's battery for something else.

Myers bought the Farmall 140 new in 1962.

"It's a great tractor and is probably worth more now than when I bought it. I installed an electric starter and put LED lights on at the front and back to modernize it," he says.

Contact: FARM SHOW Followup, Mack Myers, 2942 CR 474, Kirbyville, Texas 75956 (ph 409 988-8327; mackwmyers@gmail.com).

## "Poor Man's" 3-Pt. Hitch

Herb Hallman, Fosston, Sask., wanted to use a 3-pt. hitch snowblower on his IH 806 tractor but couldn't justify a new 3-pt. hitch. So he made his own 3-pt. hitch that pins onto the snowblower's factory 3-pt. brackets. It uses lower "push arms" that bolt onto a 5-in. wide, 1-in. thick steel plate that fits underneath the tractor's drawbar.

"A conventional 3-pt. hitch has lower lift arms, but my hitch uses push arms instead that don't lift. The hitch tilts the blower but doesn't lift it. An old 4 by 8-in. hydraulic cylinder serves as the 3-pt's top link."

Hallman says he built the hitch 2 years ago and it has been trouble-free. "I planned to use the hitch only temporarily until I could build brackets to mount the snowblower on front of my tractor. However, it works so good that I think I'll leave it right where it is. That way

I can leave my front-end loader on all year long," says Hallman.

He removed the tractor's drawbar and 2 bolts that support the drawbar frame, then drilled holes in the steel plate to match up with the bolt holes in the frame. He used 2 1/2-in. square tubing to make the lower push arms, pinning them to the lift arm brackets on the snowblower and to ears that he welded onto both ends of the steel plate.

"All the bolt holes were drilled slightly bigger than the bolts so that the blower can flex on rough ground without bending anything," says Hallman.

"I mounted a homemade hinge on the snowblower end of the cylinder. There's never any downpressure on the blower and it can lift independently of the tractor if it has to. The other end of the cylinder pins onto a top



Home-built 3-pt. hitch pins onto snowblower's factory 3-pt. brackets. Lower "push arms" bolt onto a steel plate that fits under tractor's drawbar.

link bracket that was already on the tractor," notes Hallman.

Contact: FARM SHOW Followup, Herb

Hallman, P.O. Box 4, Fosston, Sask. Canada SOE 0V0 (ph 306 322-4567; c.hallman@sasktel.net).