



Gene Preston uses an old 8-ft. wooden toboggan to plant his garden, kneeling on thick, comfortable cushions.

## Toboggan Used To Plant Big Garden

When planting thousands of plants in his garden became more work than fun, Gene Preston pulled out a toy from his childhood. Twenty years later, at 76, the Rochester, N.Y., gardener still uses the 8-ft. toboggan to plant his garden. What's even better is that the IH collector uses his 1981 Cub Cadet Hydro 682 to pull it.

"I used to crawl along the ground planting," Preston explains. "It was killing my knees."

The wooden toboggan, with its curled up front and ample length, has plenty of room for Preston, three flats of plants, a radio, water to drink, and cushions to kneel on.

"I had to put wheel weights on the tractor because in the sand the wheels would slip a little," Preston notes. "It's also nice that these Cub Cadets have variable speed hydrostatic drives so they're perfect for adjusting the speed. Peppers are closer together than squash, for example, so the tractor has to go slower."

Preston starts the planting process by driving his Farmall tractor to mark rows 40 in. apart with trenches for plants. He places flats of plants at the ends of rows so they are handy to pick up when he is on the toboggan.

During the week that he plants nearly 5,000 plants including tomatoes, peppers, squash and other varieties, he doesn't have to worry about finding an adult to pull him on a planter. "Kids love to drive the Cub," Preston says.



Toboggan has plenty of room for Preston as well as 3 flats of plants, a radio, and water to drink.

"It works very well. It beats the alternative of crawling. I have thick cushions so it's comfortable. I'm sitting back on my legs and I can plant on either side so I can change off and don't get tired."

After all his planting is finished, Preston cleans off the toboggan and puts it away for the winter until the following spring. He laughs that he is too old to use it as a toboggan, but he enjoys the memories it sparks of riding down snowy hills with his brothers 65 years ago.

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Donnie Cox's home-built mini cultivator attaches to a ball hitch he installed on back of his Poulan 18 hp. riding mower.



## Home-Built Mini Cultivator

Donnie Cox, Haworth, Okla., removed the deck from a Poulan 18 hp. riding mower and installed a ball hitch on back so he can pull the mini cultivator he built from scratch.

He uses a 12-volt winch mounted on the tongue to raise and lower the small cultivator gang. He made a small axle with lugged wheels that carry it. The sweeps can be moved in and out to get closer to rows or to straddle them. A remote control on the tractor activates the winch to raise and lower the cultivator.

Cox also built a spike tooth harrow that works on the same principle.

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Remote-controlled 12-volt winch is used to raise and lower the small cultivator gang. A small axle with lugged wheels carries it.



Ken Gies says his home-built, ground-driven pto cart make it easy to power tedders with smaller horses.

## Ground-Drive PTO Carts

Ken Gies' ground-drive pto carts are simple solutions to powering tedders with smaller horses. One of the lightweight carts even lets him rake or fluff hay with a team of miniatures.

"I mostly use a team of Haflingers now, but the miniatures handled the tedder without a problem," recalls Gies.

Gies and his wife operate their small farm completely with horses and on a tight budget. He neither needs, nor can he justify, large equipment whether tractor-drawn or horse-drawn. As a result, he has fabricated much of his own equipment, including 2 tedders, a hay loader, a buck rake and more.

"All my metal work is with a hacksaw and a 110-volt wire feed welder. It is enough for my light horse-drawn equipment," says Gies, a frequent contributor to Small Farmer's Journal (smallfarmjournal.com).

An article there outlined his use of pto carts with in-depth guidelines for sizing the cart design to the equipment being powered, such as his tedders.

Gies has two tedders, both cut down from large 4-star tedders with wings. Each features 2 rotors. The first tedder was modified from a salvaged wing to a 7-ft. width. The second was a center section with bent wheel stems that had to be straightened. It is only 5 ft. wide.

Gies designed each of his carts specifically for a tedder. The cart for the 7-ft. tedder consists of an axle from a small pickup truck that Gies found in a junk pile. The operator's platform consists of expanded metal attached to a frame made from scrap angle iron and other salvaged steel. The tongues on both carts are made from schedule 40 pipe.

After adding 13-in. car tires to the axle, Gies rolled it across the ground to get the revolutions per turn of the wheel, which he converted to the speed he wanted in order to size the pulleys needed.

The lower pulley is a clamp-on pulley

attached to the differential driveshaft. The upper clamp-on pulley is on a jackshaft from a scrapped baler. It is attached to a steel arm hinged to the right side of the axle. A screw jack mounted between the end of the arm and the left side of the axle tightens the belt by raising the upper pulley.

The rotors initially spun outward. To reverse them to spin inward, Gies initially ran the drive belts in a figure 8. This caused wear on the belts, so Gies looked for another solution. He split the gearbox, pulled one side off, and turned the shaft over to feed the other side of the input pinion. This reversed direction on the rotors, eliminating the need for the figure 8 belts.

When Gies started using miniature horses he needed a smaller, lighter tedder, resulting in the 5-ft. unit. It is based on a 6-speed transaxle from a scrapped lawn mower, traction wheels picked up cheap at auction and a previously salvaged gearbox. Gies welded a spline adapter from a Farmall Cub on the end of the gearbox shaft to get the splines to match the tedder pto shaft. A homemade shifting lever lets him control speeds.

"With the 6 speeds, I can spin fast or slow," says Gies. "The shaft coming out of the transaxle and through the gearbox runs backward, which is fine. The center section originally ran backward, but with the backward shaft, it runs the right way."

The lighter tedder works fine with a team of miniatures, as it does with Gies' current Haflingers. It is light enough that he can convert the cart quickly to working with a single Haflinger.

"The only problem is the narrow cart rides rough," says Gies. "I find it easier to walk alongside."

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Pto cart is shown here tedding hay with 2 Haflinger horses.