

SUCCESS STORIES

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Cart Art

By [Gwyn Ingram](#) on May 5, 2010



Wetzel hauls a ton of rock to damaged trail sections in each load.



The well-trained horse team easily reverses direction with limited space.



Knowlton and Wetzel's cart uses a chain link system to regulate the flow of rock to the trail.

similar damage on the Long Cane Horse Trail. Wetzel drove the team and operated the cart; Knowlton ran a front-end loader to resupply it with ton after ton of rock.

"I'm just happy as I can be with the results," said Kansanback, who hopes to try another idea Knowlton developed to create a sort of mini horse-drawn road grader to take down berms and draw displaced soil back into the trail.

Though the Forest Service pays for their time, essentially renting the equipment for use on the trails, money was never the incentive for these men, says Kansanback.

"They were just looking for an opportunity to work their horses in a unique way," he said. "If it hadn't been for the ingenuity of these guys, I don't know if we would have been able to pursue these projects. I really don't know what we would have done."

Knowlton and Wetzel, clearly not grandstanders, kind of shuffled and fidgeted as he said that.

"Aw," said Knowlton finally. "We just like a challenge. It was just something nobody else was doing and there was a need for it. I told Libby that first day, we'll make it, and if it don't work we'll just put it back in the scrap pile with the rest of the stuff."

Sometimes good old-fashioned ingenuity trumps modern technology.

Around the turn of the 20th century, draft horses had replaced oxen as the work animal of choice. The horse worked twice as fast as the ox, and was better suited physiologically to pull the new farming equipment developed in the late 1800s. Plows, hay rakes, corn pickers, wagons and buggies -horses pulled them all. But with the advent of mechanized equipment, horse-drawn tools -no longer considered practical- found themselves rusting where they were last unhitched, a quaint reminder of days gone by. Folks retired their draft animals and rode their horses simply for pleasure or show.

But not everyone hung up the harnesses. And, as Sumter National Forest's Glen Kansanback and Libby Meadows discovered, even in a mechanized age, once in a while there's nothing for the job but a big surefooted animal -or two.

"We'd been trying to figure out a way to haul and spread rock on the wet sections of our horse and off-highway vehicle (OHV) trails," said Kansanback, a natural resource specialist on the Long Cane Ranger District in western South Carolina. Aside from trail width issues, a particularly wet South Carolina winter made using heavy equipment impractical. Even smaller machines such as the Bobcat would bog down in the muck, causing as much trail damage as they were attempting to repair.

He and Meadows, the district's outdoor recreation planner, kicked around the idea of packing rock in on mules, or skidding it in on some kind of dragged sled. A crew then would be needed to spread the rock on the trail. It would be arduous and time consuming, but it seemed the only feasible option. They sent word out to the horse community in the area for input.

Luckily, the word got to just the right people.

Gene Knowlton and Duane Wetzel of nearby Saluda County, who between them owned both workhorses and mules, didn't warm to the pannier or skidding ideas, but they agreed to come out and take a look at the problem.

"Hauling rock in ten gallon panniers, we just thought it'd be forever getting it done," said Wetzel. But both men, friends for more than 20 years, were intrigued. When Meadows asked if they could do the job, Knowlton answered, "We'll come up with something."

They designed and built a cart. It would be drawn by two horses and would haul a ton of rock in each load, nearly three times as much as a Bobcat could haul. It would spread the rock to trail width using a feeder system similar to that of a dump truck as the horses moved up the trail, alleviating the need for a spreading crew.

Much of it was built from metal debris that had accumulated over the years outside Knowlton's welding shop.

"That's the back axle from under a little ol' minivan," he said, pointing to the wheel set on the bright yellow cart. And Wetzel explained how they used the third arm off a tractor to adjust the weight on the tongue. "We probably bought about \$500 worth of materials, and got about \$1000 dollars worth straight out of the scrap heap."

The cart materialized through good old-fashioned trial and error.

"Most of this was in Gene's head," said Wetzel. "We used a lot of his ideas and just kind of threshed it out and argued about it, you know? Had a ball building it." Knowlton and Wetzel figure they built three carts before they got it just right, adding pieces, then returning them to the scrap heap if they failed to achieve the balance point necessary to put no more than ten pounds of pressure on the horse's neck while hauling. They even added a master cylinder to provide critical braking power on the down slopes.

This season, using Wetzel's two Percheron/Paint mix draft horses, they've hauled 66 tons of three-inch rock to repair wet sections of the Parsons Mountain OHV trail, and 44 tons of three-quarter-inch rock to repair