



Jimmy Brooks uses his 40-ft. home-built roller to crush heavy rye cover crops.



Various researchers have developed and patented multiple cover crop roller designs.

## Crop Rollers Make Cover Crops Work

Heavy cover crops are great if you can knock them down and plant through them. When Jimmy Brooks started using rye, he knew he needed something that would crush it to the ground.

"We had been using light cover crops for 15 to 20 years. But rye is a lot heavier," says Brooks, of Atmore, Alabama. "I probably overbuilt these rollers. They're so heavy, it's all I can do to tow them with my Deere 8520."

Cover crops are a big part of Brooks' cotton/peanut rotation. It keeps his sandy soil from blowing, shades out weeds, and builds organic matter. It also helps retain moisture. However, crushing the crop down into a mat is key. Brooks says his 40-ft. roller does the job.

"I used 7 by 7-in. square tubing, a folding Orthman toolbar, and four 10-ft. drums made from 24-in. cleated steel pipe," says Brooks. "With the Orthman bar's two wings, I can fold it up to a transport width of 20 ft."

The pipe sections were sealed with a shaft mounted on heavy-duty bearings inserted through each. Linkages between the drums and the toolbar were made from 2 by 3-in. steel tubing. Each section connects to the toolbar with bearings and pivot points, allowing them to float independently over the field. The cleats were made out 1/4-in., 4-in. wide flat stock welded with braces in a spiral

around the pipe.

"The cleats give a good impression and let the drums run smoothly across the field, yet without chopping it up," says Brooks.

Each drum was originally designed to hold water should it be needed but Brooks has never needed it.

Randy Raper, ag engineer at the National Soil Dynamics Laboratory (NSDL), Auburn, Alabama, and other researchers have developed and patented multiple cover crop roller designs.

"Roller technology has long been used in South America, but they use rollers with horizontal bars pulled slowly across the field, often by animals," explains Raper. "North American farmers work at higher speeds. When one farmer tried a straight bar-type roller we made in 1999, he said it nearly shook him to death before it tore itself up from vibrations."

Since then the NSDL researchers have developed a roller with curved bars and also a smooth roller that's followed closely by a crimping bar that oscillates up and down to crush plant stems. A roller, with straight bars,

was designed to be used at slower speeds on raised beds. Raper says vibration at the slower speeds isn't a problem.

The NSDL researchers compared the three rollers and found that all three flattened a rye cover crop and killed at least 90 percent of it within three weeks. However, the roller with the smooth drum and crimping bar was most effective. Adding an application of herbicide at every fourth crimp increased effectiveness to 98 percent.

"Historically we couldn't plant into these heavy cover crops, but these rollers make it possible," says Raper. "Down here, we are always just two weeks away from a drought due to our soil's poor water holding capacity. A heavy cover crop can gain our crops an extra 7 to 14 days of drought resistance."

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## Scooter Adds Fun To Dog Walking

If you've got a dog, or dogs, that need a lot more exercise than they've been getting, you might want to think about getting a dog scooter.

While there are other dog carts on the market, Daphne Lewis says hers has a single shaft that goes over the dog's back and pulls upward on the harness.

"When you sit in the seat, the harness lifts off the dog's back so he's pulling with his sternum and is light on his feet," says Lewis.

Because of the design, even 40 to 50-lb. dogs that love to run can pull the carts. The reinforced harnesses are well padded for comfort, and the driver has reins for control.

Lewis started running dog-pulled scooters several years ago when she owned a smart Rottweiler that "needed something to do". She adapted a thrift store scooter, then discovered there were dog scooters on the market and that people race with them. "It's like skijouring on wheels," she says. Lewis created a company, DogScooter, located in Washington, selling scooters online.

"The selling point is that it's a great way to exercise your dogs," Lewis says. "The dogs are much calmer after they get half an hour or hour of running."

She carries single and double passenger sulkies and models with and without brakes. At \$800, the no-brake models are more affordable, Lewis says, and riders use their feet for braking. Models with brakes start at \$1,800. Optional two-dog hitches allow a pair of dogs to pull the sulky.



**Dog cart has a single shaft that goes over dog's back and pulls upward on harness (above). Because of the design, even 40 to 50-lb. dogs can pull the carts.**

On-the-ground training is important prior to hooking up the dog to the sulky, using the same kinds of commands dog mushers use. The [www.dogscooter.com](http://www.dogscooter.com) website includes several videos showing dogs pulling scooters and sulkies, including "Dog Scootering 101."

Sulkies weigh less than 40 lbs. and can be ordered through the website.

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