Jared Neubauer built this 40-ft. wide, 150-ft. long shade canopy for his cattle, setting it up over a large bed pack area where he spreads corn stalks.

He Built A 150-Ft. Long Cattle Shade For $2,500

"It keeps cattle out of the hot sun and also protects them from rain and snow," says Jared Neubauer, Hubbard, Iowa, about the 40-ft. wide, 150-ft. long shade canopy he set up last spring in his feedlot. It's made of black shade material and is large enough to provide shade for at least 150 mature animals at one time.

Neubauer custom-feeds cattle and built the canopy for one of his customers, who wanted shade for his cattle to keep excessive heat from cutting down on the rate of gain. He says the shade cloth blocks 80 percent of the solar radiation that would reach the ground.

"We set the canopy up over a large bed pack area where we spread corn stalks," says Neubauer. "Building our own canopy was an easy way to shade cattle, and relatively inexpensive to do. I bought the cloth online from QC Supply Company (www.qcsupply.com). It came in a 40-ft. wide roll with eyelets spaced 5 ft. apart on both sides."

The canopy is 16 ft. high at one end and slopes down to 14 ft. at the other end, making it high enough for a big loader tractor to get underneath to clean out manure. It's supported by six 16-ft. telephone poles, one at each corner and 2 in the middle, set 6 ft. deep in the ground. A 1/2-in. dia. cable runs through eyelets that run along both sides.

After setting the poles, Neubauer's crew drilled holes through the top of the poles on all 4 corners. They strung cable through the eyelets the length of the canopy and into the poles, forming a loop of cable behind the poles and then clamping it off. Then they used a fence stretcher to pull both cables tight.

"Two friends and I put the canopy up in one weekend. I spent about $2,500 to build it. A commercial shade constructed over the same area would have cost at least $30,000," says Neubauer.

Canopy provides shade for at least 150 mature animals at one time.

"The 2 middle poles started to sag inward due to the weight of the canopy, so we bolted a big horizontal pipe on between the 2 middle poles as a brace. The lower end of the canopy was also sagging so we attached 1-in. wide ratchet straps every 5 ft. to the cable, in order to tighten it even more."

He says this canopy is only the beginning. "Right now the cattle stand on concrete where they eat from feed bunks, and then they step off into the bedding pack. Eventually we plan to cover the entire feedlot with a cement floor and install a shade over everything."

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Mini road grader is only 12 1/2 ft. long. "I built it for show but it pushes and maneuvers just like a full-size grader. In fact, I grade my driveway with it," says Abe Kemp.

26-Hp. Mini Road Grader

Abe Kemp, Franklinton, N.C., recently built a miniature road grader. It has a 7-ft. blade that works like the real thing, but on a smaller scale. Everything is painted IH red.

The machine is only 12 1/2 ft. long and is powered by a rebuilt 1931 Ford Model A engine with about 26 hp.

"I call it Abe's Little Red road grader," says Kemp. "I designed it myself without using any blueprint. I just figured it out as I went along. I used a big Cat 212 road grader as a model and crafted all the working parts by myself. I built it just for show but it pushes and maneuvers just like a full-size grader. In fact, I can grade my driveway with it."

He started with the rear axles and hydrostatic transmission from a Deere 316 riding mower. The frame and tandem axle assembly on back, as well as the steering system, were fabricated in his machine shop. The turntable is a salvaged flywheel from a Cat diesel engine, with a vertical shaft mounted in the center of the flywheel.

The operator uses a 6-spool set of hydraulic control valves to raise or lower the blade and also tilt it up or down at either end. The blade can also be shifted left or right and rotated about 60 degrees. The front wheels, taken from a Cub tractor, can be cambered left or right to facilitate steering in a tighter circle. A 4-point scarifier runs in front of the blade and can be raised and lowered hydraulically.

The hydraulic fluid reservoir and gas tank were fabricated using 3/8-in. thick steel and are positioned just behind the operator's seat. The battery is located under the seat.

The road grader is equipped with 5 hydraulic cylinders – one to tilt the front wheels, two to raise or lower the blade, one to shift the blade left or right, and one to raise or lower the scarifier.

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Spear "Add-On" Helps Handle Bales

Stacking big round bales with his Bobcat 753 skid loader was a hassle for Richard Zigler, Charles Town, W. Va. When stacking bales 3 high, the skid loader was just about tall enough to stack the top bale. But when he tried to back away from the bale, more often than not the bale came with him.

That's why he came up with the idea of slipping half of a pto shield over the spear, bell end out. It lets him pull the spear out without messing up the stack.

"It was a quick and easy solution that also makes stacking bales a safer job," says Zigler. "The pto shield is about 18 in. long. It keeps the spear from going all the way through the bale and provides 18 in. of extra reach, as well as about 12 in. of additional height when stacking. Because less of the spear goes into the bale, the spear is easier to disengage which reduces the chances of the bale toppling unto the skid loader."

Zigler slips a pto shield over his bale spear, bell end out. It lets him pull spear out without messing up the stack.

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"Coon Preventer" Keeps Irrigation Pipe Flowing

Raccoons entering a 12-in. dia. irrigation pipe were causing a big problem for Virgil Haley, Roswell, N. Mex., so he made a "coon preventer" spout that automatically closes off the entrance to the pipe as soon as a booster pump shuts off.

"The spout opens with the moving water and closes when it stops flowing," says Haley, who furrow irrigates several 40-acre pecan fields. "Raccoons love pecan orchards so we have a lot of them on our farm. They crawl inside the pipe during winter, and the next spring when the booster pump comes on it kills the animals, grinding them into small pieces that plug up nozzles and pipe reducers. The last time it happened it took 2 years to get everything cleaned out," says Haley.

The 18-in. long, 12-in. wide rectangular spout is made from stainless steel and mounts on a long bolt welded across the top of the pipe. A small weight is welded to an all-thread rod that runs down through the spout. The rod is held on by a pair of nuts, which can be loosened to adjust the height of the weight depending on the water pressure. The weight causes the spout to drop down and close the pipe whenever the water is off.

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"Coon preventer" spout automatically opens with moving water and closes when water stops flowing.