



Nelson Holt says his hoof-trimming table is built just as heavy and strong as commercial units, but is more compact.



Unit is fitted with dual hydraulic pumps, which causes the tilt table to go up and down fast.

## He Built His Own Hoof-Trimming Table

Nelson Nolt's hoof-trimming table stands out because of its size. It's smaller, which makes it easier to get around tight corners and into low ceiling cattle facilities. And though it looks like a professionally manufactured unit, the Womelsdorf, Penn., hoof trimmer built it himself.

Nolt started hoof trimming nearly 20 years ago, first for his own dairy herd and then for neighbors. With experience as a welder for a bridge fabrication company, he built his first hydraulic tilt table out of scrap iron he had on the farm. As he built up his customer list, he sold his dairy cows and went into hoof trimming full time. He built an upgraded

version of his table with new steel. When his son Martin ventured off into his own hoof trimming business, Nolt sold him that table and built a third table for himself.

"I put dual hydraulic pumps on it, so it goes up and down faster, and closes and opens the head gate faster. It makes it more convenient," Nolt says.

For all his tables, he started with an axle and built a frame and hydraulic tilt table that lifts vertically like a dump truck. Instead of large diameter tubing, he used 2-in. tubing with heavier walls. His unit is just as heavy and strong as commercial-built units, but it's more compact.

Nolt measured his biggest cow to determine the size of the chute, and it's been large enough to take care of all his clients' dairy herds. He even used it for an ox though the big animal was too long to shut the chute's back door.

A cow enters the chute and the front gate closes to hold the cow's head in place. Two hydraulic belts tighten under the cow's belly, and the table is hydraulically lifted up  $\frac{3}{4}$ 's of the way. The feet are tightened down with plastic-covered chains before the table and cow are moved the rest of the way.

Nolt has an assistant, one of his sons, who moves the cows in and out of the chute and

records information about hoof conditions and other problems that Nolt may spot. They average 8 to 10 cows an hour, and they trim 8,000 to 10,000 cows a year. When finished, the table is lowered onto the trailer bed and ready to be moved to the next location.

"Most of my customers don't know it's a homebuilt machine," Nolt says. Just counting the cost for the materials, he says he saved about half the cost of a commercial unit.

Contact: FARM SHOW Followup, Nelson & Son Hoof Trimming, 4421 Conrad Weiser Parkway, Womelsdorf, Penn. 19567 (ph 610 589-1030).

## Energy-Saving Radiant Barrier Also Cuts Noise Levels

Packing boxes in a hot attic started Mike McDonald on a quest to create a better radiant barrier for homes and commercial buildings. The Lubbock, Texas, resident developed a product called TruProtect that reduces energy costs by keeping buildings cool or warm and much more.

Because of the dead air zones in TruProtect's layers, the sheets also suppress noise. In addition they cut down on hail damage and offer bug and fire resistance.

TruProtect's patented design includes laminated layers of aluminum and corrugated board 95 percent of which consists of recycled non-hazardous materials. After the sheets are cut and placed on a roof or wall with roofing tacks, self-tapping screws or adhesives, the seams are sealed with aluminum tape, with 6-in. gaps left every 10 ft. to allow for condensation to escape.

"The dirtiest secret about radiant barriers is that they often become useless because dust gets on them. TruProtect has multiple reflective layers that keep our product reflective," McDonald says, noting sheets he installed 8 years ago are still effective.

The product comes in a couple forms. The 4 by 8-ft. sheets are designed to install on roofs (under shingles) and on interior or exterior walls.

"They are not designed to be an exterior covering. They need to be covered with shingles, siding, bricks or stucco," McDonald notes. They can be used as a covering inside however, and customers can paint, texture or stucco it. Some people even like the aluminum look.

The sheets come in three thicknesses. The 1/4-in. version has 4 layers and is just a radiant barrier at \$27.95/sheet. The thicker

versions provide noise proofing and all the other benefits. The 1/2-in. has 7 layers and costs \$55.95/sheet, and the 1-in. has 13 layers and runs \$104.50/sheet.

"The cost seems small considering they reduce heating and cooling bills by 30 to 60 percent on average," McDonald says. "The 1-in. sheets are so tough you can drive a truck over them."

TruProtect also offers ceiling tiles in 1/2 and 1-in., precut 2 by 2-ft. or 2 by 4-ft. sizes for drop ceilings. Cost for the 1/2-in. thick tiles is about \$3/sq. ft., and they can be ordered in any color.

Customers' applications have ranged from a homeowner putting TruProtect sheets in the back of her kitchen cupboards to prevent the cold seeping through poorly insulated exterior walls, to the FBI lining laboratory walls and ceilings with TruProtect to reduce radio waves that affect sensitive equipment.

The sheets have been sold to customers as far north as Canada and as far south as Florida and Texas. It has been installed on poultry and hog barns and has greatly reduced the cooling costs for one customer's show cattle barn.

Whether it's three sheets or more than 500 sheets, McDonald says his company can provide products for any custom application. Check out the company's website for installation and other videos that explain TruProtect.

The sheets are Energy Star rated and eligible for income tax credits or LEED points.

Contact: Farm Show Followup, TruProtect, Mike McDonald, 7012 Cedar Ave., Lubbock, Texas 79404 (ph 877 219-5616; www.truprotect.com).



TruProtect is made from laminated layers of reflective aluminum and corrugated board. The 4 by 8-ft. sheets create an energy-saving radiant barrier on roofs.

## Bumper Makes Good Grader Blade

When Russell Burdett needed a blade to level his driveway, he made one out of scrap parts and a 1979 Chevrolet pickup bumper.

"It's heavy and the same width as my Deere 210 lawn mower tractor," he says.

He made a 3-pt. hookup out of angle iron for the bumper.

"I put a bolt in the hole on each side of the tractor hitch and made a hole in the angle iron big enough to fit over the bolt. I put a nut on it so it swivels like a hitch on a tractor," Burdett explains.

He bolted a spring-loaded lever on the tongue that lets him lift up the bumper blade and slide a piece of iron under one of the arms to hold the bumper blade up. When he wants to lower it, he pulls the lever and a string to pull the iron out.

He bolted angle iron to the bottom of the bumper with the edge cutting into the ground.



Russell Burdett made a blade to level his driveway out of scrap parts and an old Chevy pickup bumper.

One or two cement blocks add enough weight for the blade to do a nice job of leveling.

Contact: FARM SHOW Followup, Russell Burdett, 2520 Perry Hwy., Hadley, Penn. 16130 (ph 724 253-2313).