



Pierce Products custom builds implements for nursery growers, such as this disk/cultivator.

Custom Tools For Nursery Growers

Norm Pierce's goal is to simplify work for nursery growers with well-built, efficient implements.

"My motto is 'Built Tough, Built Right,'" says the owner of Pierce Products in Poplar Grove, Ill. "My implements are custom-built to whatever the customer wants, and the frames are made from heavy-duty 3 in. sq. by 3/16-in. tubing."

His most versatile model is a variable width cultivator that offers three optional widths between 42 and 60 in. by folding out one or both wings.

"A lot of growers want offset cultivating on the right side of the tractor tire," Pierce says. "This machine allows the cultivator to get really close to the rows and cultivate between varying size rows from shrubs to 20-ft. trees."

Pierce uses high-clearance shanks to allow plenty of room for debris to flow through. They are set up with 10-in. sweeps to provide overlap to cut off all roots, and the 3 by 1/2-in. shafts have 180-lb. point resistance.

Pierce, who builds everything himself, can make narrower or wider width equipment to meet his customers' needs.

He also builds rigid frame cultivators, hybrid disc/cultivators, chisel plows and deep rippers that break up hardpan up to 22-in. deep.

"All the equipment is built extremely heavy, making it almost bullet proof," Pierce



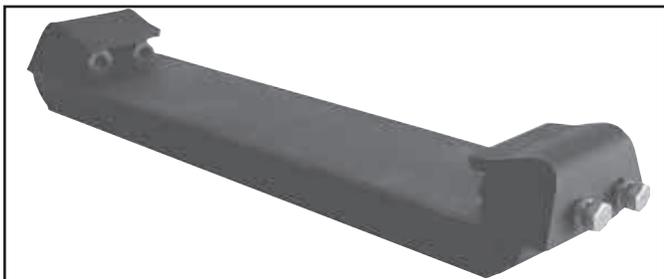
High-clearance shanks on cultivator leave room for debris to flow through.

says. The retired construction equipment operator has been building a reputation among local nursery growers for five years.

"You can run fast with these tools and cover the ground quickly - over 5 mph with the cultivator," Pierce says. They attach to Category I and II hitches and require a tractor with 40 hp or more. The implements don't have hydraulics, so they are easy to maintain, and replacement parts are readily available.

Pierce Products come with a 1-year warranty on the frame only with normal use. The variable width cultivator costs \$2,399. For information on prices of other tools, contact the Pierces.

Contact: FARM SHOW Followup, Pierce Products, Norm and Fran Pierce, 1250 Candlewick Dr. N.W., Poplar Grove, Ill. 61065 (ph 815 222-7786; www.customcultivators.com).



Clamp-on rubber track pads are designed for excavators, cranes and other steel-tracked equipment with double and triple bar grouser shoes.

Pads Turn Steel Tracks Into Rubber

"These clamp-on rubber track pads stay on just as well as bolt-on pads, without having to drill or burn holes," says Jeff Gustafson at Superior Tire & Rubber Corp., about the company's Clamp On™ rubber and polyurethane pads for excavators, cranes and other steel-tracked equipment with double and triple bar grouser shoes.

The patent-pending product is designed to install quickly with two bolts at each end. The pads make equipment more versatile because it can be used on concrete, asphalt or other surfaces that need to be protected from the steel track and then removed when surface protection isn't needed. The pads also provide increased traction and reduce wear.

"We use two floating clamps, which allows the pad to flex and continuously tighten," Gustafson says. "We offer a 100 percent worklife guarantee against bond separation, meaning the pads won't peel off from the steel plate, which would cause costly down time."

Pads come in 12 to 36-in. widths and prices range from \$55 to \$190 each.

Superior also manufactures bolt to link, mold-on and bolt to grouser track pads.

Contact: FARM SHOW Followup, Superior Tire & Rubber Corp., P.O. Box 308, Warren, Penn. 16365 (ph 800 289-1456; www.superiortire.com; jgustafson@superiortire.com).

"Water Muffler" Cleans Up Diesel, Boosts Mileage

The GreenPower Muffler boosts diesel mileage and extends engine life while helping to meet federal clean air regulations. Even better, it doesn't need special additives or expensive rare earth catalysts, and you don't have to burn ultra-low sulfur diesel fuel, says inventor and developer Julius Rim.

"This technology uses plain water," says Rim, a former senior research engineer at General Motors Technology Center.

Rim's technology is called hydrated EGR (exhaust gas recycling) with prices starting at \$1,850. That compares favorably to the \$9,600 urea additive alternative that's expected to become the new U.S. standard. With EGR systems, diesel fuel particulates are filtered out and a portion of the exhaust gas is recycled back through the engine. It helps reduce NOx (nitrogen oxide and nitrogen dioxide) emissions.

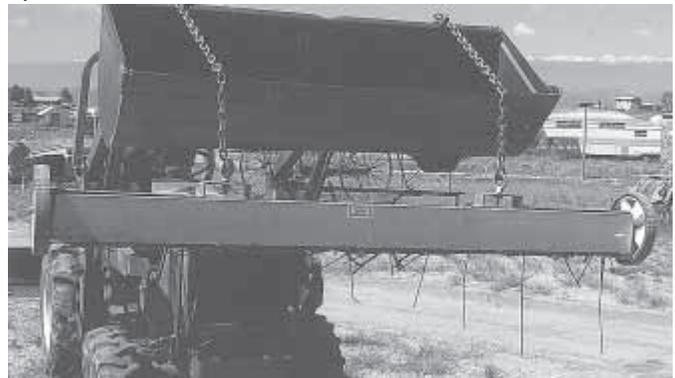
"My system uses waste heat from the muffler to turn water to vapor and pipes it to the air-intake ports along with the EGR gases," says Rim.

He says his technology has been shown to improve fuel economy by 12 percent, decrease NOx by 51.4 percent, decrease diesel particulate matter by 89.2 percent, and prolong engine life. He adds that if retrofitted to all diesel engines and installed on new ones, it also would eliminate the need for ultra-low sulfur diesel fuel.

"Current regulations requiring no more than 10 parts per million sulfur could be changed, allowing 50 parts per million sulfur," says Rim. "This alone would reduce diesel prices substantially without impacting the environment."

Rim is currently producing and testing prototypes. He recently received a \$740,000 grant from the Port of Los Angeles for a demonstration of his technology on ocean going vessels.

Contact: FARM SHOW Followup, International Metals & Energy Technology, LTD, 522 Hupp Ave., Jackson, Mich. 49203 (ph 734 414-1414; fax 734 414-1415; dieselttrap@gmail.com; www.autogreenpower.com).



DuWayne Bakker's 6-ft. long magnetic sweeper has a wheel at each end, allowing it to roll along the ground. It can pick up 15 to 20 lbs. of metal scrap in each pass.

Loader-Mounted Magnetic Sweeper

Nothing beats DuWayne Bakker's magnetic sweeper that hangs from his tractor's front-end loader. He can clear up an area in no time, picking up 15 to 20 lbs. of metal scrap in each pass.

Bakker ordered the 6-ft. long, powerful magnet from a catalog. It mounts inside an aluminum housing. A 14-in. thick, 2-in. wide strip of steel runs the length of the aluminum housing to hold the magnet, attached with aluminum rivets. At either end of the strip, he mounted small wheels sized to keep the housing 1 1/2 in. off the ground. Two lengths of chain are bolted to the steel strap. Their hooked ends slip through brackets Bakker welded to the back of the loader bucket.

"It works great," he says. "I rent my yard out to a company that builds and maintains oil drilling rigs. They have had as many as 6 to 8 welders working. When they finish for the season, I come in and pick up the bits of metal and spent welding rod. I've picked up

more than 1 1/2 tons of scrap."

When picking up a few nails or bits of metal, simply pulling the magnetic bar a few inches from the housing causes the metal to release. That's not the case when heavier amounts of ferrous material are involved.

"Nobody told me that by the time you had 20 lbs. on one side of the housing, it would be nearly impossible to pull the magnetic bar away," says Bakker.

The solution was simple once Bakker thought about it. He fabricated a short pry bar somewhat like a pickle fork at its end. He simply pries away the magnet and slips a wooden block between it and the housing. Once the metal has been cleared away, he returns the magnet to its position and makes another sweep.

Contact: FARM SHOW Followup, DuWayne Bakker, 218 Burns Lane, Mesquite, Nevada 89027 (ph 702 346-1525; cell 307 851-0030).

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