



Russell Wing spent less than \$300 to build this pull-type compost turner that's powered by an old Wisconsin engine.



Belting at the front and back of machine keeps the churning compost contained.

## Shop-Built Turner Makes Composting Easy

Building a compost turner combined two of Russell Wing's favorite hobbies – do-it-yourself projects in his shop and making good compost for his many gardens.

"I've been composting for nearly 35 years, and I got sick of turning it by hand," says the former dairy farmer turned pastor of a small church in Lisbon, N.H.

The project, which took three "springs of work", turned out perfectly and only cost \$259 using scrap metal and parts Wing had stockpiled over the years.

He started with the "landing gear" from an old storage trailer that's used to raise and lower the beater bar, which he welded out of 5-in. long, 1/4-in. scrap steel spiraling on 3-in. Schedule 8 pipe on a 1 1/4-in. rod. He powered it with an old AEH Wisconsin engine from a cement mixer and hung belting on the front and back to keep the churning compost contained.

"A slip belt is an effective but crude transmission, and I machined an idler with

a couple of bearings pressed into the ends. I wired the tractor with a double-pole, double-throw toggle switch and installed a 12-volt linear actuator to engage the idler and slip belt from the tractor seat," he explains. "It spins very fast. It has gear reduction on the engine, but the pulley on the engine is the same size as on the beater bar."

He adds that he drives his lawn mower slow when he pulls the compost turner so he doesn't bog down the engine. With a heavy-duty tongue, the compost turner can be pulled by a tractor, 4-wheeler or whatever is available.

Wing also added a 1 1/2-in. water injection manifold using pvc pipes to spray water through holes in the pipe into the compost. He hooks up a garden hose to add the water as he turns the windrows.

"I have it figured out so that the hose doesn't kink," he says, noting he only adds water when needed to keep the compost damp-sponge moist.

"Turning the compost every three days is just about right to let the bacteria do its thing. You need nitrogen to feed on the carbon particles (dried leaves, straw, sawdust) and to get the temperature to 160 degrees to kill the weed seeds," he says. "I'm able to finish compost in about 16 days because I tend to it."

Wing always has 2 or 3 windrows (3 ft. high, 5 ft. wide) in process. One is to add new scraps to and the other is being finished off. In the fall, he gathers and stockpiles leaves.

"I like the way the compost turner blends all materials. I can put long, stringy squash vines and whole tomato plants on top of the pile and this will shred them," Wing says, noting he does chop cornstalks up before adding them to the pile.

He adds that he's working on another compost turner, this time converting an old Kuhn mower conditioner that will run off a PTO shaft.

With neighbors contributing scraps and



To build the beater bar he welded 5-in. long, 1/4-in. thick steel plates onto a length of Schedule 8 pipe.

leaves he feels blessed to spread the message of composting.

And, he admits, these days he prefers making compost to gardening, thanks to his shop-built compost turner.

Check out the video at [FARMSHOW.com](http://FARMSHOW.com) of the composter in action.

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## Row Mulcher Feeds Plants, Controls Weeds

Millcreek Row Mulchers can drop-spread material over beds and rows or shoot it out as much as 40 ft. with a conveyor extension. The compost feeds crops, and the mulch helps control weeds and retain moisture.

"We built our first one nearly 20 years ago for a blueberry grower," says Henry Zook of Millcreek. "We attached a conveyor to a manure spreader. As customer demand grew, we completely redesigned it to better meet the need. So far, we haven't found any type of mulch or soil amendment it can't handle."

That includes wood chips, sawdust, compost, mushroom soil, topsoil mixes and more. Models range in size from 3 cu. yards up to 13.5 cu. yards and working widths of 48 to 85 in. to match a wide variety of row spacings. Prices range from \$7,900 for the smallest unit to \$22,000 for the largest.

Standard model row mulchers can drop material directly over rows or shoot it as

much as 8 ft. Mini row mulchers have a maximum distance of 5 to 6 ft. Distances depend on density of material and running speed of the machine with its variable speed conveyors. Cleated belts, available standard or optional depending on model, throw material farther and help break up clumps, while adjustable discharge deflectors offer precise control of spread pattern and width. Removal of the conveyor allows material to drop spread in front of and the width of the machine.

"The optional conveyor extension adds 5 to 6 ft. of reach," explains Zook.

Standard row mulcher (larger) models offer options such as dual discharge, dual wheels, walking beam suspension, metering gates for flow control, and a choice between hydraulic, pto hydraulic drive and pto mechanical drive. Custom frame configurations, pot filler and narrow top orchard models also are available.



Millcreek Row Mulchers come with adjustable discharge deflectors that offer precise control of spread pattern and width. Options include dual discharge.



"We also offer an electronic control option for use in the tractor cab," says Zook. "We have distributors on the West Coast with some dealers elsewhere. Contact us, and if we don't have a dealer in your area, we will

fill your order direct." Contact: FARM SHOW Followup, Millcreek Mfg., 525 Reservoir Rd., Honey Brook, Penn. 19344 (ph 800 311-1323; [www.millcreekmfg.com](http://www.millcreekmfg.com); [www.rowmulchers.com](http://www.rowmulchers.com)).

## Do-It-Yourself Tire Studs Provide Extra Winter Traction

If you live in snow and ice country, maybe you should try screwing some studs into your tires.

Maxigrip HM series studs are a hardened metal and galvanized hexagonal screw with a carbide hard metal core. Studs are available in various lengths (.43 in., .59 in., .71 in., .98 in. and 1.2 in.) and thickness depending on application. Studs are easily installed or removed with a standard drill.

Studs can be removed at the end of the snow season and used again. The company says these durable metal studs, which some people have re-used for 5 or 6 seasons,

increase safety through better traction in all types of conditions.

"They're an excellent alternative to snow chains, because you don't have to put them on and take them off or deal with a bumpy ride," says the company. The screws have coarse threads that keep them in place through all types of driving and, unlike chains, can't fly off a tire and damage the wheel well of a vehicle.

In addition to passenger vehicles, Maxi grip studs are ideal for tractors, heavy-duty commercial logging equipment, ice resurfacing machines, off-road vehicles,

military equipment and even dirt bikes.

A box of 100 Maxi-Grip studs sized for ATV's and skid steers, sells for \$98. Comes with an installation tool.

The company advises its customers to follow government statutes on where metal studs are allowed for road use.

Contact: FARM SHOW Followup, Maxi-Grip Store, 7-640 Jolivet,



Maxigrip HM series studs can be easily installed or removed with a standard drill.