

# Minnesota State Fair's Eco Experience shows off economics of recycling

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When you think of recycled plastics used to make new products, milk jugs or pop bottles might come to mind. But a Mankato company is one of a few, if not the only, U.S. firm to use shaven fibers from old carpets to make plastic decking lumber.

Fiber Commercial Technologies (FCT) has been shaving the polyethylene (PET) fibers to make decking for about 19 months, with 40 factory workers and a payroll of more than \$1 million.

"We are dealing with thousands of tons of [waste] carpet that we are eliminating from the landfills and turning it into recycled deck boards," said Darrell Turner, the company's chief operating officer. It's good for "the environment and the economy."

State officials have taken notice and are showcasing FCT's Fiberon decking at the State Fair's Eco Experience building with dozens of other products made with recycled materials, including a giant Paul Bunyan.

The goal is to get Minnesotans to recycle more and bolster its economic gains, Turner said.

Recycling creates 18,000 manufacturing jobs in Minnesota, plus another 43,000 transportation, supply and other indirect jobs, said Wayne Gjerde, the recycling market-development coordinator for the Minnesota Pollution Control Agency (MPCA). "When you throw out items that can be recycled, it's throwing out jobs."

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MPCA's Wayne Gjerde set up displays at the State Fair's Eco Experience building. Gjerde passes milk jugs, which can be recycled into plastic lumber; a display on plastic lattice.

Minnesota products manufactured with recycled goods — plus repair, thrift and rental stores — generated \$26 billion in sales, \$6 billion in wages and \$1.3 billion in taxes in 2017, according to the state.



Still, each Minnesota household discards a ton of trash each year, even though "60 percent is still recyclable material," said Peder Sandhei, MPCA's principal planner.

"We obviously want to see more of that diverted away from landfills and being used as marketable materials," Sandhei said. "It has economic value."

Minnesotans could do better at recycling aluminum, cardboard, grocery bags and food waste, Sandhei said. The lull exists despite widely available curbside recycling, grocery bag collection sites and county compost yards.

Turner from Fiber Commercial said he wants to see Minnesota develop a statewide carpet recycling program similar to the state's successful used-paint recycling program.

To get fairgoers excited about putting more waste to good use, MPCA staff spent three weeks inside the fair's Eco Experience building putting up manufacturers' product displays, the 20-foot-tall Paul Bunyan made of recycled clothing, and drop-off bins for fairgoers to ditch old cellphones and computer tablets.

Under the large blue "Reduce, Reuse, Recycle" banner are FCT's decking, as well as compostable bags for fairgoers made of corn. There are interactive games and educational stations about recycling and a new button to activate Paul Bunyan's "voice."

The "recycling ambassador" is programmed to belt out some 35 facts about Minnesotans' trash habits or what can happen when used paper, plastic, bottles, cans and clothes is steered back to factories — and the economy, of course.

During a recent sound check, Bunyan bellowed out MPCA's message: "Over the last 45 years we have thrown away nearly 40 billion pounds of recycling. Holy buckets! We sure could have used that to create new jobs."

"Wow!" chuckled one passing worker as she heard the voice for the first time.

Docks, decks, insulation

Exhibits include a plastic dock pillar made by Bedford Technologies, By the Yard benches made from recycled milk jugs, Yardbird patio furniture made from plastic found in the ocean and Polar Barrier cellulose insulation made from old newspapers.

"About 15 million pounds of paper will be kept out of landfills because of this product," said Gjerde while hoisting a bale of insulation across the room. "Minnesota has about 260 manufacturers like this that use recycled goods in their processing."

With a new supply contract secured from Menards in February, Polar Barrier's parent firm, Insolution Manufacturing LLC of Loretto, Minn., is poised to double sales to \$5 million a year, said Insolution co-owner Todd Maass.

The company is moving into a larger 60,000-square-foot factory on Oct. 1 and plans to increase its 12-member production crew. It's an exciting time, Maass said, for a company that collects old newspapers from five states.

Maass said China recently stopped importing "mixed" or "dirty" U.S. paper, which means there is more used paper available to American factories like his.

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Wayne Gjerde from the Minnesota Pollution Control Agency passes milk jugs, which can be recycled into plastic lumber.

As a result, a movement is afoot to get local recycling centers to not just sort trash by hand, but to also employ optical scanners and other techniques that better separate waste streams and reduce contamination that makes materials unusable, Maass said.



"The idea is to get this material a little bit cleaner," he said. "For us, it is getting a little bit easier to get [clean] materials. And it has to do with the MPCA working and pushing these guys" to recycle cleaner waste.

Back at the State Fair, workers busily staged shelving and filled product racks. Several positioned new products from Avon Plastics, a Paynesville, Minn., firm that has long made HDPE plastic lumber from tossed shampoo and detergent bottles and milk jugs, but is now expanding into other recycled products found to be highly marketable.

"Business has been really good. It is smoking," Avon CEO Mark Reum said while dropping off 10 of his products at the fair.

Last year, Avon introduced new garage floor tiles, which now sell on Amazon.com and Target.com. This year fairgoers will see its new 4-foot decorative "grass," "willow" and Frank Lloyd Wright-styled lattice panels. They are made from old milk jugs and water bottles. Avon is also making new PVC fence post covers from recycled credit cards and vinyl siding.

"Our core business is plastic recycling, and it has been really good to us," Reum said. With new supply orders from Lowe's and Home Depot, Avon Plastics sales will jump 20 percent to \$30 million this year. Staff grew from 85 to 110.

To keep up with demand, Avon recently spent \$250,000 to buy land and two buildings next door to its Paynesville plant, Reum said. The creative recycling "business has exploded for us."