



Rotating batch processor takes in manure, garbage, and even livestock carcasses.

## Low Power Composter

Big batches of compost can be produced at low operating costs with the new X-Act Composting System. The big-as-you-need rotating batch processor takes in bio-sludge, manure, and even livestock carcasses. In 3 to 5 days, it turns out sweet smelling, high value and weed seed-free compost. It even reduces pathogens to near zero, and it does so with as little as a 5 hp motor.

"We had been in the manure handling business and started developing this about 7 years ago," says Glen McConkey.

The Composters vary from 6-ft. diameter, 24-ft. long to 10-ft. diameter with a length of 128 ft. With a 10 by 32-ft. system already in place on a New York dairy, and more systems on order, McConkey is confident his composter is catching on.

Early interest was from dairy farmers, but poultry producers and city sewage handling departments are also studying the X-Act Systems. One attraction is the impact shown on pathogens. In tests, fecal coliform pathogens were reduced from an estimated 5,190 to only 20, well below the U.S. EPA standard of 1,000 for pathogen-free products.

"We are getting calls from all over," says McConkey. "We have a mortality composting system that the Chinese government is very interested in. It has a grinder and can handle up to 2,000-lb. animals."

Systems can be built as long as needed. McConkey says a 6 by 24-ft. unit would be sized about right for a milking herd of 125 cows plus dry cows and replacement stock. He admits it might be hard to cost-justify a unit for smaller herds, but he is getting interest anyway.

"I had a guy with 110 cows justifying it to me," McConkey says. "He has a nursery that wants the compost, and he doesn't want to fight the rain and snow making it outside. He sees it as starting to make sense."

Poultry producers are interested, he says, because the system can compost feathers, manure and litter to a dry state free of pathogens. At that point, it can be returned to poultry buildings as dry, fresh litter, marketed as



Compost can be discharged from the in-vessel composter after just three days.

compost to the landscape/nursery markets, or spread on nearby fields.

X-Act composting systems aren't cheap. Prices range from \$125,000 on up depending on size. Because so many components are standard no matter what the size, there is great economy in scale. The larger the unit, the faster the payback.

"If you put a \$10/cu. yard value on the compost, a decent size dairy will earn back the cost of the system in four years, if not the interest," says McConkey. "We are seeing people pay up to \$35/cu. yd. for composted manure."

McConkey points out that a 10 by 32-ft. system weighs 50 tons and turns 35 tons of material every 6 minutes. It is engineered so a loaded system can stop dead and start back up without a problem.

"We've stopped the 10 by 32-ft. system when it was full, and the 10 hp motor started back up easily," says McConkey.

He says the systems are built extra heavy duty to take the 24/7, 365-day-a-year operation that is expected from them.

"All bearings are checked every 6 months, and the industrial drive unit has lifetime lubrication," he says. "It is all heavy duty."

Contact: FARM SHOW Followup, X-Act Systems, Glenn McConkey, 340 Sidney Street, Trenton, Ontario, Canada K8V 5R6 (ph 613 394-1922, x304 or 800 920-0630; fax 613 394-4311; xactsystems@on.aibn.com).

## How To Reach Us

To submit a "Made It Myself" Story Idea, New Product, Shop Tip, "Best or Worst Buy", or other information, send a note along with photos, drawings and literature, if available. We'll get back to you later if we need more details. Send to: Editor, FARM SHOW, P.O. Box 1029, Lakeville, Minn. 55044 (ph 800 834-9665; fax 952 469-5575); email: editor@farmshow.com. You can also submit information at our website: [www.farmshow.com](http://www.farmshow.com).

To change your address, renew your subscription, take out a new subscription, order videos or books, or for other information regarding your subscription, contact: Circulation Department, FARM SHOW, P.O. Box 1029, Lakeville, Minn. 55044 (ph 800 834-9665; fax 952 469-5575; email: [circulation@farmshow.com](mailto:circulation@farmshow.com)).

## Carbide-Tipped Chain Saw Chains

Equip your chain saw with a carbide-tipped chain and it'll stay sharp 15 to 25 times longer than a conventional chain in tough cutting conditions, says Rick Fowler, Rapco Industries, Inc., Vancouver, Wash.

The company is a leading supplier of chain saw chains for specialty cutting applications.

The carbide-tipped chains are available in nearly all pitches and gauges to fit most chain saws, and can be customized to specific cutting requirements.

"Carbide-tipped chains aren't new - we've been selling them for more than 20 years. Our main customers are fire departments, construction crews, and anyone who does demolition work," says Fowler. "However, farmers and ranchers can benefit from them, too. They work great for cutting abrasive wood such as fallen trees, removing tree stumps and roots, railroad ties, and so forth. They also work great for cutting firewood. When a conventional chain accidentally contacts the ground, you'll get a dull chain right away. That won't happen with a carbide chain. They also work great when cutting along fence rows, where trees have grown into the fences and you might run into nails or wire.

"One customer told us he uses his carbide-tipped chain to cut cedar trees growing out of rocks, where it was impossible for him to keep from catching the chain on a rock now and then. They also work great for cutting through plastic and fiber."



Carbide-tipped saw chains stay sharp much longer than conventional chains, and don't have to be replaced as often.

Carbide-tipped chains cost about six times more than standard steel chains, says Fowler. "We sell the chains for \$1.95 per drive link, which typically works out to about \$140 per chain. A conventional chain sells for about 35 cents per drive link, which works out to about \$20 to \$25 per chain. However, to many people the labor saved in not having to sharpen chains all the time and not having to replace them as often is worth the extra cost."

The company offers three types of carbide-tipped chains. Fowler recommends either the Camfer or Chisel style for farmers and ranchers.

The chains are resharpenable, but you have to use a diamond sharpener which the company sells for \$4.95 plus S&H.

Contact: FARM SHOW Followup, Rapco Industries, Inc., 6000 N.E. 88th St., Suite D-104, Vancouver, Wash. 98665 (ph 800 959-6130; fax 360 573-0046; [rick@rapcoindustries.com](mailto:rick@rapcoindustries.com); [www.rapcoindustries.com](http://www.rapcoindustries.com)).

## Pop Can Solar Unit

When Jim Meaney started building solar collectors out of pop cans in the 1970's, he never dreamed that 30 years later he would be selling units through 80 plus dealers in 8 countries. While it has taken a lot of time to perfect and prove his product, recent fuel spikes have turned up the heat on sales. What hasn't changed is his basic design that still uses pop cans.

"We use 250 aluminum pop cans in each unit," says Meaney. "It takes quite a bit of hand modification to form them into tubes."

It's no wonder the Newfoundland inventor has stuck with them. They work great. Independent engineers have evaluated the Cansolair Model RA 240 Solar Max and report that it will heat an 8,000 cu. ft. (1,000 sq. ft.) room, providing a complete air change in 1 1/2 hours. As little as 15 minutes of sun per hour will provide a comfortable temperature in the room. Multiple panels can be hooked together for larger areas.

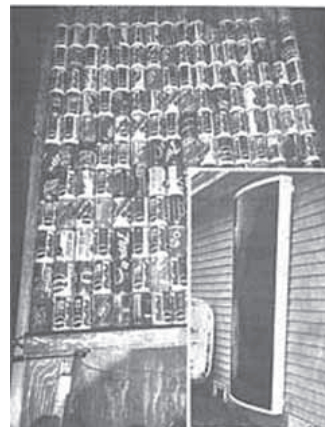
The 4 by 7-ft. collector panel mounts on an outside wall facing south, southeast or southwest or on an unobstructed roof. It has 15 vertical columns of pop cans. The cylindrical shape of the cans increases the actual collector surface.

The unit includes an unbreakable lexan cover, a washable air filter and electronic controls, air valves and sensors. Controls activate a fan when temperatures inside the collector reach 110°. They shut it down when the temperature in the collector falls below 90°.

"It also shuts off when the thermostat in the room reaches the desired temperature," says Meaney.

The fan draws in cold heavy air near the floor, pushes it through filters in the collector and back into the room. The exchange of filtered hot air for cold air breaks up the natural layering of cold air near the floor.

Tests show that within 8 minutes of the appearance of the sun, the unit will have reached 100° output temperatures. The fan that pulls the cold air in and pushes the warm air out draws 31 watts of energy to do its work, but



Made from pop cans, solar collector is designed to mount on an outside wall or on an unobstructed roof.

produces from 1,200 to 2,400 watts of heat energy.

Meaney says the units can be retrofitted to heat water. He suggests using a dashboard heater from a car and hooking it up with a closed loop water system.

"The system retails for about \$1,995 and takes two people about four hours to install," says Meaney. "Simply cut holes and line up with the headers."

Meaney estimates that a unit will pay for itself in 5 to 6 years, depending on the price of fuel. He is in the process of developing software for prospective buyers to use.

"They will be able to use the software to match the Cansolair to any house anywhere in Canada or the U.S.," says Meaney. "You will be able to access carbon credits, payback and savings in comparison to oil, gas and electricity."

Contact: FARM SHOW Followup, Jim Meaney, Cansolair, Box 100, Colliers R.H., Newfoundland, Canada A0A 1Y0 (ph 709 229-4387; fax 709 229-4387; [info@cansolair.com](mailto:info@cansolair.com); [www.cansolair.com](http://www.cansolair.com)).