Retractable cover is 20 ft. wide and half a mile long and covers a 10-ft. deep trench that holds manure.

Airtight cover allows all odors and gases to be pulled off for processing. Cover can be retracted temporarily whenever compost needs to be turned.

Retractable Cover Traps Methane In Compost Pit

This retractable compost cover was created to meet a challenge from a customer for a retractable cover 20 ft. wide and half a mile long covering a 10-ft. deep trench that held manure.

The airtight cover allows all odors and gasses, including methane, to be pulled off for processing. When the compost needs to be turned, the cover retracts temporarily.

"We have a unique design that causes the cover to flex upward when it seals," explains Mike Curry. "Aluminum trusses in the cover arch upward like a bow pulled back when the cover is deployed. Without the arch, condensing moisture tends to pull the cover down into the compost."

To seal the cover, Curry installed plastic channels on the walls. As the plastic cover is unrolled, a 'Poly Fasteners' insert strip snaps the film into place and creates a tight seal. The covering itself is a poly weave material with a polyethylene coating on both sides. It forms an airtight layer resistant to ammonia gas and odors. Once in place, the arched poly cover creates a more uniform temperature, speeding composting time as well as sealing in gasses.

The retraction system can be powered by gas or electric motors. Covers can be produced in widths from 3 to 30 ft.

"While we are marketing the concept to compost producers, we think a big market will be biogas production," says Curry. "It also has application anywhere an elongated opening needs a retractable cover, whether horizontal or vertical surfaces. For example, it could be used inside greenhouses to automatically unroll shade cloth or plastic to hold in heat on bedding plants."

Every system is custom designed with a base price range of $2 to $3 per linear foot with a 20-ft. span.

Contact: FARM SHOW Followup, Curry Industries, 19 Burnett Ave., Winnipeg, Man., Canada R2G 1C2 (ph 204 661-1729; toll free Canada 800 538-0008; toll free U.S. 877 337-8700; curryind@mts.net; www.curryindustries.com).

Deere "B" Mower Tractor

"I thought FARM SHOW readers would enjoy this one-of-a-kind Deere tractor that I modified to use as a lawn tractor," says David Owings, Eldora, Iowa.

"Special tire equipment gives the machine a low profile and low center of gravity for stability and reduced ground speeds. Built on a 1942 Deere "B" row crop chassis, it pulls an 84-in. Woods rear discharge finish mower at 3 mph through 7-day growth Kentucky bluegrass with ease. The 1,100 rpm engine is relaxing to listen to compared to a modern 3,600 rpm screamer.

"What I did was to install 9.5 by 24-in. Firestone turf tread tires on the rear and 16-650 by 8-in. ply turf tires on the front. I also engineered a Cat I 3-pt. hitch and added power steering that's completely hidden in the chassis except for the belt-driven pump I used. In addition, the original crank-start was replaced by a 12-volt electric starter with a 12-volt alternator. I also installed a remote fuel tank with an electric fuel pump to replace the stock tank above the engine. The gasoline stays cooler and there's less evaporative losses.

"Another change I made was to install a horizontal exhaust, which is compact and there's no pipe sticking up to catch tree branches. I also installed an automotive dry panel air filter, which is concealed in the frame so there's no air stack sticking through the hood to catch.

"The rear wheels I installed fit the common 9-bolt Deere hubs – they were custom-built at a local co-op that has a wheel shop that uses the wheels on center-pivot irrigation rigs. The front wheels were made by a friend using 8-in. Snapper Comet rear wheels and 6-lug centers from old wagon wheels.

The final touch was to install a comfortable K&M Deere-style cloth seat designed for a 40-Series tractor.

"Gear speeds with these tires range from 1.5 mph in 1st gear to 7.8 mph in 6th gear.

"Friends laugh when they see it but I tell them it'll do the work of four garden tractors and it already has a 67-year start to outlasting all of them."

Contact: FARM SHOW Followup, David Owings, 1414 7th Ave., Eldora, Iowa 50627 (dvd42@heartofiowa.net).

David Owings modified this 1942 Deere "B" tractor to pull an 84-in. Woods rear discharge finish mower.

Modernized Deere B Tractor Fitted With Snowplow

"I've used it to move hundreds of tons of snow during the past 30 years," says John Bipes, Mankato, Minn., about the 6-ft. snowplow he mounted on front of his old Deere B tractor.

The snowplow was made by cutting apart an old water tank and adding a hardened steel edge off a road grader blade. The blade can be raised and lowered by activating a hydraulic pump that's belt-driven off the tractor's flywheel.

Other changes that Bipes made to the tractor include the addition of amber/blue strobe lights, mounted front and rear, which increase the tractor's street visibility. He got tired of crank starting the tractor so he added the starter motor off a 1986 Toyota pickup. He also added an alternator and regulator to power a pair of headlamps.

"I use it to clear a 150-ft. long, double-wide city driveway, as well as to clear snow from around my woodpile and paver-stone patio," says Bipes. "All the changes I made to the tractor were made in such a way as to preserve the tractor for possible restoration later, perhaps by some future owner. Everything I added can be unbolted and unbelted to return the tractor to its original condition."

Bipes says that although his snowplow is basically a push plow, the blade is free to float at an angle from side to side. "If the blade accidentally hits a concrete curb, it tilts forward on a pair of 1/2-in. mild steel hinge bolts (which also act as shear pins) and is snapped back into plowing position by a pair of coil springs off a garage door. Large adjustment bolts with pin-handles welded to them allow me to manually adjust the attack angle at which the blade makes contact with the ground."

The 250-lb. plow is lifted by a discarded Jeep single action cylinder and pump, which is belt-driven off the tractor flywheel. The pump and valve body are bolted to a bracket that bolts onto the tractor's left rear axle. The blade is raised by a pair of lift arms, which are welded to opposite ends of a 1-in. dia. length of Jeep axle that's free to rotate about 1/4 turn. Flat steel fulcrum plates, through which the axle shaft rotates, bolt onto the tractor's horizontal rails.

Contact: FARM SHOW Followup, John Bipes, 906 Adams St., Mankato, Minn. 56001 (ph 507 387-3840).

John Bipes mounted a 6-ft. snowplow – which he made by cutting apart an old water tank - on front of his Deere B tractor.