

"Does the work of an \$8,000 rig," says MacCuaig, of his homemade pump that'll fill a 2,000 gal. tank in 3 minutes.

SPREADER WAGON MADE FROM STAINLESS STEEL MILK TRUCK TANK

Farm-Built Manure Handling Equipment

Using all junked parts, including a salvaged stainless steel milk truck tank, Ian MacCuaig, Dalhousie Station, Que., built a manure handling system that he says, rivals the most expensive equipment on the market.

In addition to high-capacity pump and spreader wagon, MacCuaig built a manure transfer system that moves manure from the barn to his lagoon — winter and summer — with no machinery whatsoever.

MacCuaig's first project was his high-capacity manure pump that'll fill a 2,000 gal. tank in 3 min. He started with a construction pump he found in a scrap yard and mounted it on a portable frame. At first he powered it with a salvaged truck engine but the engine turned too fast so he switched to a tractor pto. Because the pto turned the opposite direction, he searched the salvage yards for a gearbox that reverses the drive and also boosts tractor pto speed from 540 to 1100. He had to machine a coupler to fit the gearbox. A chain drive powers the pump. It's all mounted on a portable frame built from the chassis of a wrecked Toyota car.

The intake pipe on the pump is 4 in. in dia and the outtake 5 in. The pump could handle up to a 6 in. dia. pipe but MacCuaig says the bigger pipe would be too hard to handle.

"I've used it for 2 years without a hitch. Does the work of an \$8,000 rig," states MacCuaig.

His next project was to build a spreader truck from a salvaged stainless steel milk truck tank. He bought it for \$1,000 and mounted it on a dump truck chassis purchased for \$100. He cut away the front cab and engine of the truck and built a cradle to precisely support the shape of the milk tank. To save weight, he cut away the outer shell and cork insulation of the double-lined milk truck tank before mounting it on the truck.

Manure is pulled out of the truck and spread by a 4-bladed, pto-powered impellor fan that literally blows the manure up and out the back of the tank where it hits a deflector



Milk tank spreader distributes manure over a 35-ft. area using a 4-bladed pto-powered impellor.

plate that spreads it out over a 30 to 35-ft. area.

"All parts that come into contact with the manure are made from stainless steel so there's very little wear or deterioration," says MacCuaig, noting that he built the fan-type impellor, which is belt-driven off the pto, from scratch. He says the entire 2,000 gal. tank can be emptied in about 5 min. "The hardest part was building the cradle. It must provide a lot of support to the tank because of the tremendous weight."

Perhaps the most important part of MacCuaig's manure handling system is the way he gets manure from his dairy barn to his 80-ft. dia. (10-ft. deep) lagoon. He simply built a huge concrete culvert that's 10 ft. deep, 6 ft. across and 50 ft. long. The barn cleaner dumps manure into the culvert and MacCuaig adds water. The culvert is built level and manure finds its own level, gradually working its way out to the lagoon, which is located at the far end of the concrete culvert.

"I didn't want to slope the culvert because that causes solids to separate out. This way it all works its way to the lagoon without any piston pumps, air pressure or other machinery. During winter, it works its way out and pushes in under frozen build-up on the pond. It's completely trouble-free," says MacCuaig, noting that he spent about \$7,000 to build the manure culvert and dig the lagoon.

Contact: FARM SHOW Followup, Ian MacCuaig, Dalhousie Station, Que. JOP 1GO Canada (ph 514 764-3464).

HELPS PROTECT DRIVER FROM TOXIC SPRAYS

Chemical Filter For Tractor Cabs

"Farmers tell us it's exactly what they've been looking for," says Ralph Wasylynick, designer-manufacturer of a rechargeable tractor cab filter that protects the driver from chemical spray odors.

"I've tested it on my own farm. I know it works," Wasylynick told FARM SHOW. He notes that, in addition to filtering out odors from herbicides and pesticides, it also absorbs engine exhaust and other objectionable odors.

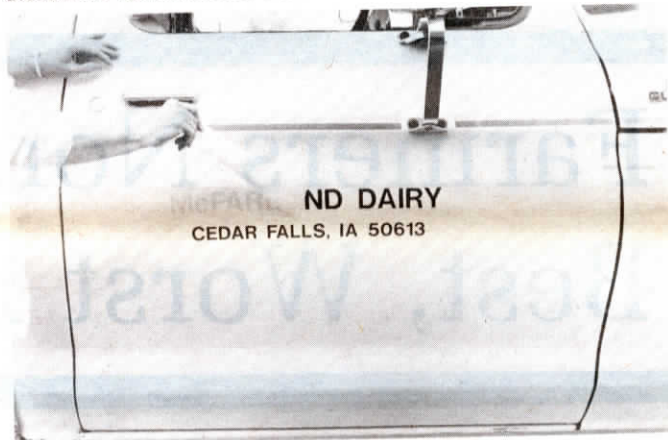
The filter uses activated charcoal, the same filtering material used in nose-type respirators, to remove odors. When the charcoal supply needs replacing — usually at the start of each spraying season — you simply "recharge" it with new activated charcoal. It's readily available in local stores and a refill

costs only \$15 or \$20, says Wasylynick.

The easily-installed filter slips in over the top of the cab's existing dust filter. "It doesn't impair efficiency of the dust filter. It does slightly reduce the amount of air flow into the cab but not enough so you notice it. The cab is still pressurized and the air conditioner works as good as ever," Wasylynick points out.

Cost of the filter ranges from \$190 to \$250 (Canadian dollars), depending on make and model of your tractor and its factory-equipped cab. Filters also available for ¾ ton pickups and spray "coupes".

For more information, contact: FARM SHOW Followup, Merit-Aire Ltd., Box 337, Raymore, Sask. SOA 3JO (ph 306 746-4484).



To apply letters, simply press strips onto the surface and then remove the backing strip.

Stick-On ID Letters

A Colorado sign company has developed a new computer-generated lettering system that makes it easy to put your own personal mark on cars, trucks, windows, farm buildings or doors.

You can order letters in black or white perfectly spaced on easy-application strips. You simply press strips onto the surface and remove

the backing strip.

Letters come in ½, 1, 1½ and 2-in. sizes. They sell for 50¢ a letter, with a \$5.00 minimum.

For more information, contact: FARM SHOW Followup, Spear Co., Dept. 4416, P.O. Box 7025, Colorado Springs, Colo. 80933 (ph 303 471-9850).



Manure flows from barn to lagoon via this 50-ft. long, non-sloping concrete culvert.