



**Turf Star 2000** uses six 6-volt deep cycle batteries to power three direct-drive motors mounted on top of mower's 3-blade, 44-in. deck.

**MOWS TWO ACRES ON A SINGLE CHARGE**

## Electric-Powered Riding Mower

"The first-ever battery-powered electric riding mower is new from Ardisam, Inc., Cumberland, Wis.

The Turf Star 2000 "Electra" uses six 6-volt deep cycle batteries to power three direct-drive motors mounted on top of a 3-blade, 44-in. deck. It combines near zero-turn capability with the convenience of infinitely variable speed control.

"It runs very quiet, is pollution-free, and requires almost no maintenance," says Maas. "There's no gas or oil to mess with, no noxious fumes, and no belts or pulleys to replace or adjust. You can mow about two acres of lawn before the batteries have to be recharged, depending on terrain, depth of cut, and type of battery used. It takes about 13 hours to recharge the batteries.

"It costs less to operate than a conventional riding mower. At 6 1/2 cents per kilowatt hour of electricity, it costs about \$1 to \$1.25 to completely recharge the battery. A 16 hp conventional riding mower uses \$3 to \$4 of gas to mow the same amount of lawn.

"The mower comes with rack-and-pinion steering, disc brakes, large 20-in. drive wheels, and a 'quick-tach' deck mount system."

Sells for \$5,795 to \$6,295 depending on type of batteries used. Price includes battery recharger and optional electric deck lift.

Contact: FARM SHOW Followup, Ardisam, Inc., Rt. 4, Box 666, Cumberland, Wis. 54829 (ph 715 822-2415).

**UP-FRONT EQUIPMENT CARRIER GREAT FOR CULTIVATING, SPRAY WORK**

## Snout-Nosed Tractor For Row Crop Work

A built-from-scratch tractor with a "snout nose" equipment carrier up front is "great for row crop" work, according to Russ Jensen who built the tractor for use on his St. Ansgar, Iowa, farm.

The engine, transmission and other power components are all positioned under or behind tractor cab and rear wheels. The front axle sits out ahead, connected to the main part of the tractor by a 7-in. sq. steel "bridge".

The tractor frame is made from 3 by 5 in. 1/2-in. wall tubing. The rear end is a 23,000 lb. Eaton 2-speed, offset with Steiger planetary final drives. The rear end housing is bored out to let a powershaft through. It drives a Fuller 5-speed transmission from a truck (mounted backwards) which then drives a gearbox that Jensen made to transfer power - through a constant velocity joint - back into the rear end.

"This arrangement gives us 10 equally spaced forward gears and two in reverse. Runs at a top speed of 18 mph. A pto runs off the crankshaft of the engine and was made from a 2-speed unit off a truck rear

end. We mount a roller pump on the pto to power our sprayer, mounted on front end.

A 60 hp, 3-cyl. Ford 201 cu. in. engine from a Ford backhoe provides the power. Jensen mounted the engine backwards on the rear end with a 14-in. 4 finger clutch with 1 3/4 fine spline disc that was custom-made by Theobald Custom Mfg., Stacyville, Iowa. "All clutch and other components were built extra heavy since we were originally going to fit the tractor with a 392 Chrysler until a friend donated the smaller Ford engine (we ended up putting the Chrysler engine in a Dodge Club Cab)."

Jensen covered the engine and rear end under a sheet metal housing that's easily opened for maintenance. Only the pto protrudes from the back of the housing.

Fuel tanks, which mount on top of the fenders, appear to be part of the tin work. The radiator is above the engine behind the seat - just under and slightly behind the back window. A fan draws air through the radiator and down over the engine and out the bottom to keep dust in the engine compart-

**REQUIRES NO ELECTRICITY AND NO TRENCH DIGGING**

## Non-Freezing Water Hose

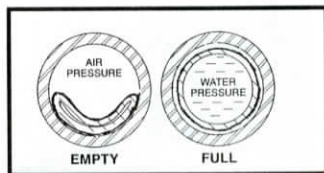
How about this — a brand new kind of non-freezing water hose that requires no electricity and no digging of trenches?

To run water to outside livestock yards in mid-winter, you simply string the amazing new "freeze proof" hose from Frost Free Water Systems along a fenceline or the side of a building. You can even string it out over the top of snow drifts if you like.

Without electricity or any kind of protection, it will remain "frost free" even when outside daily temperatures drop to 40 or more degrees below zero, according to Roger Walsh, co-inventor and manufacturer.

His unique "freeze-proof" water hose is a hose within a hose. There's an outside hose, and an inside hose surrounded by a 5 psi cushion of air. When you turn on the tap, water flows through the inside hose, causing it to expand. As it does, it raises the inside air cushion to about 20 psi. When you turn the tap off, this buildup of internal air pressure presses against the inside hose, causing it to collapse and force out any remaining water.

"This self-emptying feature is the key factor," says Walsh. "If there's a mid-winter power failure and the water pump shuts off, the hose, thanks to inside air pressure, automatically empties to prevent freeze-up. If for any reason the outside hose is punctured, you simply seal the puncture and, with a bicycle pump, restore the inside air pres-

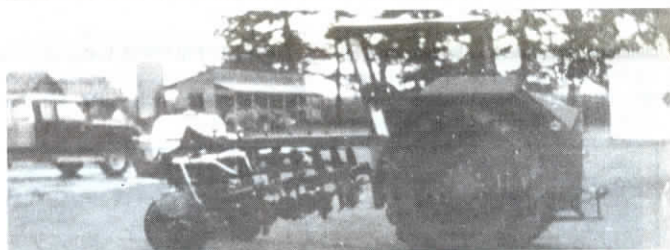


sure to 5 psi.

"In addition to water, the 'freeze proof' hose works equally well to move other liquids, such as liquid manure. It will accommodate up to about 45 ft. of lift," says Walsh. "Maximum hose length, determined by the amount of pressure generated by your piston or submersible pump, can be up to 300 yards or more."

The inside hose is made of rubber, and the outside hose of heavy-duty, semi-rigid plastic. Retail cost (Canadian dollars) is \$3.50 per ft. for 1/2 in. hose (inside diameter of inside hose), \$4 for 3/4 in. and \$5.99 for 1 1/8 in. Add 50 cents per foot for freeze-proof hose made with flexible plastic outside hose, allowing it to be rolled or unrolled in extremely cold weather. Comes in standard 25, 50, 75 and 100-ft. lengths, and in custom-ordered lengths.

Contact: FARM SHOW Followup, Frost Free Water Systems, P.O. Box 1055, Cobourg, Ont., Canada K9A 4W5 (ph 800 263-3410, or 905 355-5530).



Front axle sits out ahead, connected to main part of tractor by a steel "bridge".



Front-mount cultivator is raised and lowered by lift cylinders above front axle.

ment to a minimum. "I made my own all stainless steel 'pusher' fan because the engine is mounted backwards. Fan is belt-driven by powershaft that runs over engine."

Rear tires are 18.4-38's. Front wheels are off Jensen's stock car as are the spindles and aluminum hubs. rest of the front end is made from heavy wall tubing and he used Torrington needle bearings on steering components instead of bushings. Power steering is provided by a hydraulic cylinder.

All hydraulics on the tractor came off a Massey combine. The front-mount cultivator is an old John Deere unit which is raised and lowered by lift cylinders above the front axle. Spray tank that mounts above the front axle is used to carry 28 percent nitrogen - for side dressing corn - or herbicides for spot spraying while cultivating.

Contact: FARM SHOW Followup, Russ Jensen, Jensen Bros., Rt. 2, Box 132, St. Ansgar, Iowa 50472.