

Ralph Baldrige watches while his driverless Mowtron mows his 2½ acre lawn.

LOOK MA! NO HANDS!

Driverless Mower 'Sniffs' Underground Guide Wire

By C. F. Marley

After 3 years of successful operation, Ralph Baldrige's electronically guided mower still causes drivers to do "double takes" as they see it for the first time. But to Ralph it's not a novelty but a completely practical way to mow the lawn.

Ralph's mower, built by Mowtron, of Alpharetta, Ga., guides its way by electronically "sniffing" underground impulses from an imbedded 18 gauge wire. Ralph and his wife June use it to automatically mow 2½ acres of lawn surrounding their Dorchester, Ill., country home. To do the job once takes about 5 hours so the self-tending, driverless mower is quite a labor saver.

When Ralph first saw the mower demonstrated, his first reaction was that it was "gimmicky." But he has an appreciation of labor saving devices and has built any number for use on his own farm. The more he studied the mower, the more he was convinced it would do a good job for him and his wife, June.

Ralph looked it over seriously. He found out that what made the thing perform was impulses sent out through the wire by means of a 48-volt, 2-amp transformer. The mower has a solid state electronic tracking system attached to a single steerable wheel up front which reminds you of a "sniffing" hound dog's nose. These impulses steer the wheel, keeping it above the imbedded wire.

So far so good. But a riderless rotary mower could be dangerous to people and pets. What about that? Ralph learned that the mower has pressure sensitive shut-off bumpers which will shut off the engine with 12 ounces of pressure.

What about cost? The "clincher" in deciding to buy the new-style mower, says Ralph was in learning that total cost of the mower, including installation, would just about equal the cost of a Cub Cadet, and it requires a driver.

Ralph had the Mowtron Company install the wire. He has a total of 5

miles of wire (18 gauge insulated copper) buried in a maze and at a depth of 2 in. The wiring plan first was laid out on paper. Installation was done with a vibrating type point similar to what power line crews and telephone crews use, only it was smaller. While the mower cuts a swath 48 in. wide, the maze of wire is closer so that there are no skips left. Wire installation took three days.

The mower, equipped with a 7 hp self-starting engine, is self-propelled. When it completes the cutting job, it parks itself and shuts off the engine.

June likes the mower, too. It had taken a lot of time before to mow the lawn every 6 days, then to trim up after the mowing was done. With the driverless electronic mower, she can go right ahead with the trimming and let the mower run itself.

Ralph likes to tell about a couple of physically handicapped brothers living near him, and who also have installed a Mowtron electric mower system: "Saw them in town the other day. They told me they were mowing their grass."

The driverless Mowtron Mowing System will not adapt to any existing mower due to the difficulty in clutching and braking the machine, adapting the turning radius, and there is too much unnecessary additional weight, on conventional mowers, according to Tyrous Ward, president of American Marketing and Sales Corp. which markets and manufactures the Mowtron mower. "Presently, we only manufacture one mower, which is a 36 in. cut, 7 hp mower with electric starter and alternator. This system, completely installed and ready to operate on a one-acre lawn, retails for \$2,000 to \$2,500, depending on the difficulty of the terrain and the obstacles," Ward told FARM SHOW.

For more details, contact: Mowtron Mower, American Marketing and Sales Corp., Tyrous Ward, President, 305 Tidwell Circle, Alpharetta, Ga. 30201 (ph 404 475-9633).



Bales can be stacked and retrieved two at a time with twin prongs.

PICKS UP BALES REGARDLESS OF HOW THEY LAY

Front Loader Prongs Carry Two Big Bales

First on the market with twin prongs for carrying two big round bales at a time on front-end tractor loaders is Fred Schmidt Metalcraft, Dunganon, Ont.

Designed for use with tractors over 120 hp, and with double acting cylinders on the loader, the twin prongs allow the driver to pick up, transport and stack two big round bales at a time. The operator can also remove stacked bales two at a time.

One of the bale-spearling prongs is in a permanent fixed position. The other floats and is locked into position after it is "spearled" into a big bale. This combination of a fixed and a floating prong allows a second bale to be picked up without interference from the already-spearled bale, and allows both bales to be carried at the same height on the loader.

The driver spears the first bale in the center with the fixed prong. He then spears the second bale with the floating prong which, in the floating position, hangs lower than the fixed spear. After loading, the operator then drops the loader and tilts the bucket back slightly to snap the

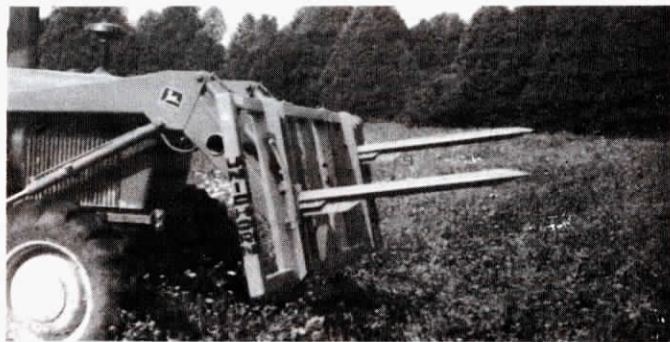
floating spear into a locked position.

The operator can stack bales two tiers high on a trailer, or three tiers high on the ground. Once the bales are set into position on a trailer or stack, the driver backs away. As he does, he hits the hydraulic lever to drop the loader bucket with a slight jerk. This unsnaps the floating prong, putting it back into the floating position for loading the next pair of bales.

To remove stacked bales, the floating prong is manually locked into position, allowing the twin prongs to pick off two bales at a time.

Retail cost is right at \$1,300. Inventor-manufacturer Schmidt emphasizes that the twin-prong attachment is recommended only for tractors 120 hp or larger. "Tractors this big are able to carry the weight of two big bales without undue wear and tear on the front wheel bearings," he points out.

For more details, contact: FARM SHOW Followup, Schmidt Metalcraft, Fred Schmidt, President, Dunganon, Ont., Canada NOM 1RO (ph 519 529-7922, or 7724 after hours).



Prong in background is in a permanent fixed position. Prong in foreground floats, locking into position after it has speared a big bale.