



Ground-driven, 7-tooth Star Wheel turns rod weeder.

### "EFFECTIVENESS OF HYDRAULICALLY DRIVEN RODS WITHOUT THE COMPLEXITY"

## New Rod Weeder Is Ground Driven

"It has the effectiveness of hydraulically driven rods without the complexity of hydraulics, u-joints or couplers," says Sonny Ferris, sales representative for Keho Alta Products, Barons, Alberta, manufacturer of the new "Terra-Drive" rod weeder for tillage equipment, fertilizer applicators and air seeders.

"With the Terra Drive, you're not using hydraulic power to run the rod weeder and you don't have to get off the tractor to uncouple it when you folding up the wings," Ferris notes.

Key to the Terra Drive is a ground-driven 7 tooth Star Wheel, geared at a 2:1 reduction ratio. It turns the 1-in. steel rod to uproot weeds, prepare soil for seeding and seal in anhydrous ammonia.

The Star Wheel's housing keeps trash from clogging the wheel and makes the unit self cleaning.

Ferris notes that you can purchase a complete unit, or just the Star Wheel drive to convert your existing rod weeder to ground drive. One drive unit per implement section is required. The steel rod mounts on brackets bolted to the implement shanks.

The Star Wheel sells for \$180, the 1-in. dia. steel shaft for \$4.90 per ft. and the brackets and hangers to mount the rod for \$28.50 each.

For more information, contact: FARM SHOW Followup, Keho Alta Products Ltd., Box 70, Barons, Alta., Canada TOL OGO (ph 403 757-2444).



First-of-its-kind machine harvests up to 30,000 lbs. of sorghum juice per acre.

## Sorghum Harvester Makes Molasses In The Field

You've never seen a machine like this in-field sweet sorghum juice harvester that squeezes as much as 30,000 lbs. of juice out of an acre of sorghum right in the field for use as molasses, to make alcohol, or to sell "straight" for various industrial purposes.

Robert Scott, Mankato, Minn., designed and built the machine, by modifying a Gehl 188 8-blade forage chopper. The flywheel, gearbox and blower housing are removed. The crusher mill attaches to the back of the feeder

housing and feeder rolls. The tractor pto drives the crusher rollers via a transaxle unit taken from an IH WD9 tractor.

Crushing pressure on the rollers, which Scott built from scratch, varies from 75 to 100 tons, controlled by a self-contained hydraulic system that maintains pressure with a nitrogen-over-hydraulic accumulator that maintains pressure on the rolls. He pulls the machine with an IH Hydro 1026. A 600 gal. storage tank trails behind the machine. Juice content of the sweet sorghum varies from 65% to well



"Fuelmaker" cuts auto, truck and tractor tires into three or more sections in less than a minute.

### URNS TIRES INTO "LOGS"

## Old Tire "Fuelmaker" Now On The Market

"We've had thousands of inquiries from 46 states in the U.S., six provinces in Canada and several foreign countries. Visitors have traveled here from Oklahoma, Washington, Kansas and many other parts of the country to see the machine," says inventor Arne Hoppe, Milona, Minn., whose "fuelmaker" machine that cuts up old tires for easy burning in wood stoves (Vol. 10, No. 5) is now in commercial production.

Hoppe sold production rights to Mantle Industries, Inc., Blaine, Wash. The company is already on the market with two models, one for car and light truck tires and the other for larger truck and tractor tires. The self-contained machines, fitted with gas engines, sell for \$7,500 and \$9,500, respectively. A lower-priced tractor-powered model is also available.

Hoppe, a farm machine shop operator, built the machine originally to cut up the thousand of car tires he had collected for use as fuel. He now charges tires shops and garages a fee to dump tires on his place and then processes them through his machine to burn in an outside hot water stove that heats both his house and shop. He also sells the processed tires by the truck load to farmers throughout the Midwest to burn in their own stoves.

The fuelmaker uses a hard-surfaced, blunt-edged blade pushed by a 4-in. hydraulic cylinder through a slot in a cutting table to cut through the tire sidewall. A small piece of tire is punched out with each "cut". A 28-hp. gas engine powers hydraulics on the cutting arm. Takes just 10 seconds to cut a car tire into three sections.

The secret to the success of Hoppe's invention is what he does with the tire

sections after they're cut. He turns them into dense "logs" by fitting them one inside the other, slipping as many as 12 sections - equivalent to four tires - into a space 1/3 the size of an uncut tire. The solid block of rubber takes less space to store and feeds easily into stoves, burning from the outside like a wood log. Without Hoppe's method, tires tend to burn too hot due to the air in and around them.

Hoppe says farmers he's heard from have come up with all kinds of new uses for his machine and tire logs. "They're using them to fuel furnaces on grain dryers, barns, homes, and any other place they need heat. I've sold more than 22,000 cut-up tires since your FARM SHOW story. I also heard of other uses for the machine. For example, the U.S. Forest Service is interested in it. They put tires around young tree seedlings to help them get started because it warms the soil and helps preserve moisture. They want to put a notch in the tires so they can get them off. Up to this point they're been putting thousands of tires around trees with no way to remove them."

Hoppe retained the right to build his own tire cutting machine and he still sells the Aqua Therm water-jacketed furnace that's ideal for burning tires (Aqua Therm, Box 281, Brooten, Minn. ph 612 346-2264). Mantle Industries, manufacturer of the fuelmaker, is working on an after-burner for the Aqua Therm - and other stoves - that'll eliminate any smoke or smell from burning tires.

For more information, contact: FARM SHOW Followup, Mantle Industries Inc., 1100 Yew Street, Blaine, Wash. 98230 (ph 206 332-5276).

over 70% at harvest, which can be any time from early to late fall.

"The juice can be boiled down to table grade molasses for either human or animal consumption. Alcohol producers like it because it can be fermented directly with a high yield of ethanol. There's also a demand for the product for various industrial uses. It'll produce a higher net income than corn or soybeans and is highly adaptable to the Corn Belt," says Scott, who notes that the residue can be baled and fed to livestock, or left in the

field to dry and baled later for use as bedding for livestock.

"It's the only machine of its kind. Up until now this type of juice harvest has involved tremendous labor and to haul the material to a stationary crusher-extractor," says Scott, who's currently developing a production model and looking for a manufacturer.

For more information, contact: FARM SHOW Followup, Robert N. Scott, Rt. 6, Box 193, Mankato, Minn. 56001 (ph 507 625-1290).