



C.G. Mouch built this 3-wheeled "easy rider chopper mower" equipped with a 38-in. belly-mount deck. It's powered by a horizontally opposed 18 hp Briggs & Stratton gas engine.

## Easy-Riding "Chopper Mower"

When C.G. Mouch mows his lawn, he rides in style and comfort on his home-built "Chopper Mower".

Painted Deere green and yellow, the 3-wheeled "easy rider" mower was built from the back half of a Deere STX 38 riding mower and the front half of a Honda 750 motorcycle. It has a 38-in. belly-mount deck that's powered by a horizontally opposed 18 hp Briggs & Stratton gas engine. The mower has dual headlights, brake lights, and dual stainless steel exhaust pipes that make the rig sound like a Harley Davidson motorcycle. The driver sits on a "king queen" motorcycle seat.

"When people first see it, they tell me it looks great but they wonder if it cuts grass. They're amazed when I tell them I can mow fast at speeds up to 10 mph," says Mouch, of Brusly, La.

The Deere STX 38 mower had a frozen engine, which he replaced with the Briggs and Stratton model. He cut the mower's frame off behind the front wheels, keeping the rear wheels, differential, 5-speed transmission, and deck. He bolted on the motorcycle front end, including the forks, handlebars, and gas tank. He replaced the Honda's front wheel with an aluminum cast front wheel off a Yamaha 450 motorcycle. The Deere mower's original rear wheels were replaced with 10-in. aluminum wheels off a mini chopper.

The chopper mower still has the STX's original drivetrain, with the clutch on the left

side and the brake on the right side. The mower blades are belt-driven via a clutch-operated electric pto and are activated by flipping a switch located behind the shift lever. The electronic ignition key is also located there. The throttle control mounts on one of the handlebars.

"It's a lot of fun to drive," says Mouch. "I got the idea for building it about a year ago when a friend sent me a photo of a home-built, 3-wheeled chopper mower that he saw on the internet (after it appeared in FARM SHOW in Vol. 29, No. 2). The mower has a lot of torque - so much that if I remove the deck and rev the engine up to half throttle and then drop the clutch, I can do a wheelie."

"It's surprisingly maneuverable, although with a total length of 8 ft. it doesn't turn very short. I changed the pulley ratio so the machine will travel at speeds up to 10 mph. Most of the time I mow grass in fifth gear, but whenever I'm cutting in close places I shift down to first or second gear. Then I rev up the engine so the blades will still spin fast enough to do a good job of cutting."

Mouch bought the dual rectangular headlights on eBay. "I used them because they were popular in the 1960's on choppers," he notes.

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## He Built His Own Waste Oil Furnace

"My uncle, John Frankish, runs an auto repair shop here in upstate New York and, about four years ago, he decided to build a waste oil stove to get away from the high price of fuel oil," says Casey Frankish, Hall, New York.

"He first looked into factory-built units but couldn't justify the cost. So he started experimenting with different ideas until he found the right combination of air pressure and nozzle types along with a heat exchanger. It has worked out great, with some modifications along the way.

"The current model burns about 10 gal. of waste oil a day. John heats the shop at least five days a week for eight to nine hours a day. His stove easily keeps the shop at 70 degrees no matter how cold it is outside."

The waste oil heater is made from 14-ga. sheet metal and has a 6-ft. long heat exchanger, with a burner at one end. An air compressor is hooked up to the burner. An electric motor belt-drives a squirrel cage fan hooked to a thermostat, which blows air through an L-shaped metal duct and into the heat exchanger. The fan is used to push heat throughout the shop. Heat is blown out of

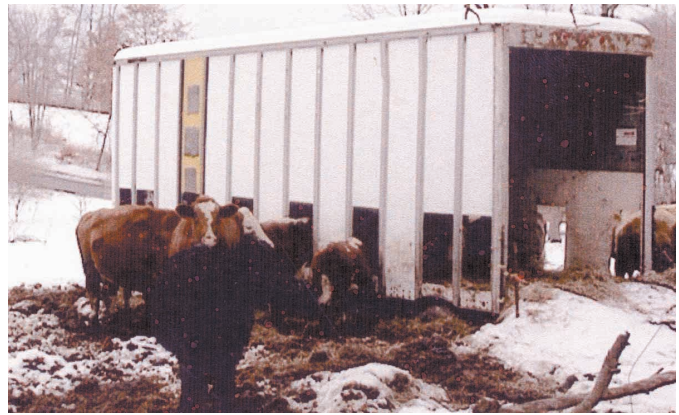
holes cut into the top of the heat exchanger through a curved section of stove pipe.

Oil gravity flows out of a coffee can that Frankish mounted about 4 ft. off the floor.

"It's a simple design, with not much on it to go wrong," says Casey.

"It's amazing how little oil it uses for how much heat it puts out. I think it uses only about half as much oil per heat unit as most commercial models. The key to operating it is to keep the oil at least 70 degrees and the fuel/air mixture set to completely atomize the oil. He fastened a piece of heat tape to the oil line in order to keep the oil warm so that it burns better. The heat exchanger has three holes across the top, and he usually plugs up two of them to keep the shop from getting too hot."

John made his own air nozzle which Casey says "does a great job of atomizing the oil". To make the nozzle he used 1/4-in. dia. copper tubing and used a vise grips to smash the ends down, forming a fish tail for the air to come out of. "It burns so efficiently that even when running at full capacity, there is no smoke, which I find impressive especially considering that it produces about 160,000



Ken Teckman converted a 28-ft. semi trailer into this round bale feeder.

## Hay Feeder Made From Semi Trailer

FARM SHOW reader John King, Chicora, Penn., recently sent us a few photos of a big bale feeder his neighbor, Ken Teckman, made from a used 28 ft. semi trailer.

Teckman cut a series of 18-in. wide holes in the aluminum sides of the trailer using a sawzall. He alternated positions of the holes on either side of the trailer. "That keeps the wind from blowing straight through," he says.

He dug the wheels into the ground up to the axles so the feeder was at the right height for cattle to reach the hay.

The rear door on the trailer remains open all the time. Cattle can't get in because it's

fenced off.

Teckman put a ramp down from the door and simply drives his round bale hauler into the trailer.

"All I've got is \$500 in it. That's what I paid for the trailer," he says.

This year, Teckman wants to put an awning on each side to keep the cows dry as well as any hay that falls out the feed holes.

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## Low-Cost Portable Posts

Sturdy, low-cost and easy to move. That describes the temporary fence posts that Clyde McCoy of Clyde, Alta. made for his cattle operation.

McCoy uses the posts for winter swath grazing. He says they could be useful for rotational summer grazing, too.

He bought junked car rims "by the pound" from a tire recycling plant for about \$2 per rim, and on each one, he welded an upright 3 1/2-ft. section of 3/8-in. re-bar into a lug nut hole. To hold the wire, he placed a regular plastic electric fence insulator on the re-bar.

The mobile posts are extremely stable and are also very easy to move.

By moving one post, and then walking to the next one to move it, in a zigzag pattern, the fence line can be moved over to a fresh section of ground pretty easily.

McCoy grazes 300-plus cows using this system with about 65 of these portable posts.



Temporary fence posts were made by welding 3 1/2-ft. sections of 3/8-in. rebar to junked car rims.

"It works well for me and I like it. It's something I find handy," McCoy says.

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"It easily keeps my shop warm no matter how cold it is outside," says Casey Frankish about his home-built waste oil furnace.

to 180,000 btu's per hour. I think this nozzle works twice as well as anything on the market."

It cost John about \$1,000 in steel to build the stove but it has paid for itself many times

over, says Casey.

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