Outhouse Smoker Powered By The Sun

John Benoit's smoker may look like an old fashioned outhouse, but it has solar power, computerized controls and Wi-Fi. He uses the 5-ft., 11 in. tall, 29 by 32-in. steel box for family meals, as well as taking it on the road for catered events.

"It started out as a standard, steel box smoker the size of a small refrigerator, but I wanted something different," says Benoit. "I had a drawing of an old outhouse and built the exterior from it."

Benoit framed the outhouse with 1-in. square tubing and used fiberglass insulation and styrofoam around the smoker before attaching 1 by 4-in. cladding. A warming oven mounts under the roof.

The smoker door has a handle made from Osage orange wood and a solid brass crescent moon salvaged from an antique door. Large caster wheels support the "outhouse". They make it easier for Benoit to winch the smoker into his 16-ft. trailer for transit.

"I don't know how much it weighs, but between the steel and the 2 boxes of firebrick on the bottom, it is heavy," says Benoit.

A thermometer is mounted between the doors of the smoker and the oven, but the computer and Wi-Fi are key to the operation.

"The star of the smoker is the Flame Boss 200 controller," says Benoit. "It is the best tool I have bought for saving time and improving the quality of meat."

Sensor probes in the smoker are wired to the controller, which in turn runs a small compressor. When more heat is needed, the compressor feeds air through a 4 by 4-in. steel tube at the base of the smoker. This manifold delivers the air to the charcoal bed in the smoker.

A solar panel on the roof powers the controller and fan with wiring for 110V backup. The Wi-Fi lets Benoit monitor and manage the entire process whether standing alongside or miles away.

"I can put in meat for a family meal, leave for lunch and shopping, and come home to a perfectly cooked meal," says Benoit.

The same holds true for Benoit's catered meals, as well as the pulled pork he sells locally. The Wi-Fi allows him to constantly monitor and adjust the cooking process, but it also collects data.

"I have a history of all the cooking temperatures and more, including the fan output," says Benoit, who has years of experience catering events.

A baffle over the charcoal spreads heat out. A water pan above the baffle keeps the meat moist, while a second pan above it catches dripping fat.

"I used restaurant chafing pans that are 4 in. deep and 12 by 34 by 20 in.," says Benoit. "I put foil over the water pan and poke a hole in it with a pencil. The hole lets out just the right amount of steam, and the water lasts for an entire 8 to 12 hr. cook."

Another secret he shares is how he stores his smoke-producing wood. Once he has soaked it, he puts it in a plastic bag and sticks it in the freezer.

"To produce the smoke flavor I want, I pull them out of the freezer bag and lay a few pieces on the coals," says Benoit.

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John Benoit built this outhouse smoker on caster wheels. The solar-powered cooker has computerized controls and Wi-Fi. He uses it for family meals and catered events.

Sensor probes in the smoker are wired to a controller, which in turn runs a small compressor that delivers air to smoker's charcoal bed. A solar panel on roof powers the controller.

Mini Loader Built For Cub Cadet Garden Tractor

"I wanted a front-end loader for my Cub Cadet 1440 garden tractor but couldn't find anything. So I built my own from scratch," says 81-year-old Carman Fedele of Tidioute, Penn.

He used 1/8-in. thick steel to build the bucket and 2-in. flat strap that's 3/16 in. thick to build the cutting blade. The bucket measures 37 in. wide and 15 in. deep and can be raised up to 50 in. high to load a pickup bed. A local welding shop sheared and bent the metal for the bucket, and then Fedele welded the end plates on.

The loader frame is made from 1 1/2 by 3-in. rectangular tubing and attaches to the tractor's frame with 8 bolts. Fedele used 2-in. wide, 3/8-in. thick strap iron to build a mounting base on each side of the tractor. The base supports uprights that attach to the loader arms.

A hydraulic pump shaft-driven off the tractor's engine operates the bucket cylinders, which came off an old semi truck equipped with a cab-over-engine. Fedele added a 2-spool hydraulic control valve to dump the bucket and raise and lower the loader.

"It's fun to operate and easy to handle," says Fedele. "I spent less than $1,000 to build it. The bucket has a capacity of 400 lbs. so it isn't designed for heavy work, but it comes in handy for a variety of jobs that would otherwise have to be performed by a large tractor. Some examples are to remove snow from driveways, to scrape and spread gravel on the driveway, and to clean out ditches along the edge of a road in front of our home. The bucket is 1 in. wider than the tractor's front wheels, so it won't interfere with them when driving through snow or mud."

He welded three hooks on top of the bucket, reinforcing them with a length of welded-on rectangular tubing. "By attaching chains to the hooks I can easily pick up things around my shop, such as gas or oxygen tanks," says Fedele.

"The tractor came with exhaust stacks alongside the hood so the loader doesn't interfere with the mower or opening the tractor's hood. I added a counterweight on back of the tractor to counterbalance the extra weight up front."

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"It's fun to operate and easy to handle," says Carman Fedele about the front-end loader he built for his Cub Cadet 1440 garden tractor.

Meat-Flavored Chocolate

Imagine putting a juicy steak and a hunk of chocolate in a blender. That's what New Zealand food scientist Dr. Mustafa Farouk did and he says the meat-flavored chocolate tastes great.

Dr. Farouk partnered with Devonport Chocolates, a maker of luxurious hand-made New Zealand chocolates. He started with a very lean cut of fine beef and turned it into a smooth buttery mixture. Devonport Chocolates then combined the beef with their ingredients at about a 50/50 ratio. Consumers can tell it's not regular chocolate, but the taste of meat is almost impossible to detect. While the flavor has been described as "wonderful", people are understandably hesitant about a unique dessert that's 50 percent beef. Farouk says all it takes is a few bites of the rich chocolate to win people over.

The new meat chocolate isn't on shelves yet but Farouk says it will be marketed locally and internationally.

Dr. Farouk and his team at New Zealand's AgResearch have all sorts of interesting uses for meat including ice cream, mousse, icings for cupcakes, gnocchi, bread, and yogurt.

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Food scientist Dr. Mustafa Farouk developed a unique meat-flavored chocolate dessert that's 50 percent beef. All it takes is a few bites of the rich chocolate to win people over.

Photo courtesy, Bevan Read/stuff.co.nz