Mobile Brush Burner Made From 500-Gal. LP Tank

"I built this 9 1/2-ft. long, trailer-mounted mobile trash burner out of an old 500-gal. LP tank. It lets me burn brush and big tree branches in my yard without killing the grass. Eliminates the need to haul brush away," says Dave Kulzer, Albany, Minn.

The trash burner has a 30-in. wide opening on top that runs from front to back. An air intake on front and back allows air into the bottom of the tank, and a removable 2-in. drain on front lets water run out when not using the burner.

"The bottom of the trailer is about 1 1/2 ft. off the ground so it won't burn grass. 3-ft. long metal shields on both sides of the tank keep the tires from getting too hot," says Kulzer.

After being certain all gas is out of the tank, he used a cutting wheel on a big grinder to cut the opening in the tank. To attach the tank to the axle, he welded an angle iron bracket to the axle and bolted the tank onto it.

"I really like it because by the time I'm done cutting brush and trimming trees, everything is burned up and I don't have to haul anything away."

Contact: FARM SHOW Followup, Dave Kulzer, 30216 Co. Rd. 41, Albany, Minn. 56307 (ph 320 845-2306).

"It lets me burn brush and big tree branches in my yard without killing the grass," says Dave Kulzer, who built this mobile trash burner out of an old 500-gal. LP tank.

No Rock Too Big For Bergen Picker

Al Bergen has yet to see a rock too big for his rock picker. However, sometimes the tractor pulling the Bergen Rock Picker isn't big enough.

"One customer had a 4-WD with triples all the way round and spun down all 12 wheels trying to pull a rock out," recounts Bergen. "Guys have told me about hooking on to a rock and when they pull forward, there's dirt moving behind their tractor wheels. However, I've never heard of a rock they could grab with the three teeth that couldn't be moved."

The frame is 6 by 6 by 3/8-in. steel. The 3 teeth are the key to the design of the picker. The 2-in. thick steel plates at the rear "dig" to a depth of 34 in. behind a rock.

The hydraulically-driven front tooth (also 2-in. steel) drives into the ground, curving back to grab the rock against the rear plates. Once secured in the 3-point grip, the 6-in. cylinder pulls it up and out of the ground. All 3 teeth feature replaceable tips, about the only real wear points on the machine.

"The only limitation I've seen is the shape of the rock," says Bergen. It can pick up rocks the size of a large desk, say 6 by 3 by 3-ft. all day long. It's incredibly strong and very heavily built."

The Rock Picker/Digger was introduced in 1984 and has been updated many times over the years. One change was giving the front grabbing tooth a more curved design to pick up smaller rocks as well as large ones.

"When it was introduced, we thought it was good to be able to grab 50 rocks in a day, something you couldn't do with a backhoe," says Bergen. "A local farmer rented one from us and said he picked more than 300 rocks in a day. Our customers now mark the location of big rocks with their GPS when combining and come back later to pull them out."

The Bergen Rock Picker/Digger is priced at $13,780 (Canadian). Although there are a few dealers in the U.S., most sales are made in Canada.

Contact: FARM SHOW Followup, Bergen Industries, Box 133, Drake, Sask., Canada S0K 1H0 (ph 306 363-2131; www.bergenindustries.com).

Hydraulically-operated Bergen rock picker forms a 3-point grip around rock and then pulls it up and out of the ground.

"Smokeless" Wood Burners Imported From Europe

Dean Zook of Smokeless Heat, a distributor of high efficiency wood burners imported from Europe, says, "By combining a modern gasification burner with thermal storage tanks, you can produce clean heat efficiently and economically without smoke."

Smokeless Heat distributes several high efficiency boilers, furnaces and heating systems, including wood gasification, wood pellet and electric boilers made by the Varmebaronen company from Sweden. The company also handles heating systems from Poland, the Czech Republic, and Denmark.

The key to smokeless technology is gasification, which is a chemical reaction that occurs at temperatures above 700 degrees F between the wood and a limited amount of oxygen. Extreme heat and lack of oxygen causes gases in the wood to release in the form of carbon monoxide, hydrogen and carbon dioxide. The wood gas mixture enters a burning chamber and burns at temperatures of almost 2000 degrees F. After the gas is burned, any left over emissions leave through the chimney. Effective gasification is achieved when little or no smoke is leaving the chimney.

"'Smokeless' wood boilers use energy in wood or biomass products with an efficiency 3 times greater than traditional boilers," Zook says.

Other fuels such as wood chips, corn cobs, corn and coal can also be used. Heat generated by the boilers can be integrated into a hot water heating system or a forced air system using a heat exchanger.

Imported "smokeless" wood boilers use the energy in wood 3 times more efficiently than traditional boilers, say manufacturers.

Unlike the good old days when stoking or re-loading the fire in the middle of the night was a common occurrence, today's modern boilers can easily burn 10 to 13 hrs. on one fuel load. Prices range from about $5,000 for the smaller sizes to almost $9,000 for the larger units.

"Modern boilers are very efficient and very reliable," Zook says. "Ceramic inserts that store the heat last 3 to 10 years depending on how hot a boiler burns.

Contact: FARM SHOW Followup, Dean Zook, Smokeless Heat, LLC, 2020 Cornwall Rd., Lebanon, Penn. 17042 (ph 717 389-0083; www.smokelessheat.com).

To check chlorophyll levels in crops, place a leaf across the GreenIndex board and take a picture with your iPhone or iPad that's equipped with a special app.

iPhone App Checks Health Of Crops

Checking chlorophyll levels in crops is as easy as taking a picture with an iPhone or iPad with a new app that helps identify nitrogen needs in the growing crops.

"You can download the FieldScout GreenIndex + Nitrogen app from iTunes and order the FieldScout GreenIndex board from us," says Mike Thurow, Spectrum Technologies. "We're also developing an app for Android phones and hope to have it out by next May or June."

To use the FieldScout app, place a leaf across the GreenIndex board and take a picture. The screen will show the leaf, a yellow spot, a green spot and a "Done" button. Tap on the green spot, then the yellow spot, then the leaf and finally the Done button. The app uses the known color values of the yellow and green colored discs to adjust for ambient light and capture the truer green value of the leaf.

"The handheld device generates the DGCI (dark green color index) of the leaf and the SPAD (soil plant analysis development) equivalent value," explains Thurow. "The app then gives a nitrogen recommendation. It can also georeference the spot where the reading was taken and log it for later review"

Thurow says the primary market for the app in 2013 is corn. That's where most validations of the technology have been made. However, it can be used on any crop. SPAD meters have been around for 25 years, but this is more affordable than a SPAD meter or a DGCI meter," says Thurow. The app is priced at $99 and the GreenIndex board is priced at $49.

Contact: FARM SHOW Followup, Spectrum Technologies, 12360 S. Industrial Drive E., Plainfield, Ill. 60585 (ph 815 436-4440; toll free 800 248-8873; www.specmeters.com).