

Hay Logs Add Value To Waste Hay

Instead of trying to sell rained-on hay for compost or watching it rot away, Peter Bragdon figured out how to compress hay into 5-lb. logs that will burn 2 to 3 hrs. With all the rain Maine typically receives, the horse hay farmer has rained-on hay every season. By turning it into hay logs, he hopes to get as much money for the waste hay as he does for horse hay.

Hay tightly wrapped around the drive shaft of a baler gave him the idea. About \$30,000 in development grants gave him the funds to build a homemade press and do research grinding and mixing the hay with different binders to get the right mix. Without a binder, hay at 10 percent moisture burns hotter than stove manufacturers recommend. The University of Maine tested the logs, which produce between 7,283 and 13,660 btus/lb., within wood stove manufacturers' warranty.

"The logs are 5 lbs. each so I can get about 8 from a typical square bale," Bragdon says.

"If this works, I'll switch to big round bales."

Reports have been positive from consumers in the area who've tested the hay logs. They liked the aroma of the timothy and mixed-grasses hay. Because it doesn't have the chemicals found in wood, there shouldn't be any creosote, and only a fluffy ash is left to dispose of.

Bragdon found a wood compression manufacturer to modify equipment to compress the hay logs and is looking into a manufacturing grant or business loan to hopefully get set up to produce hay logs this year.

"I don't care how long it's in the field and when they mow it, but it has to be dry," he adds.

Contact: FARM SHOW Followup, Peter Bragdon, 50 Hannaford Rd., Vassalboro, Maine 04989 (ph 207 623-1476; p.bragdon@myfairpoint.net).



Peter Bragdon has figured out how to compress hay into 5-lb. logs that will burn 2 to 3 hrs. in wood stoves. "I can get about 8 logs from a typical square bale," he says.



Horse-drawn power unit can be used for cutting, raking and baling hay, as well as chopping silage, and many other farm jobs that require tractor-like power.

Portable Power Unit Handles Many Farm Jobs

"There are many farmers out there who need or want horse-drawn power units and they like the design I came up with," says Sam Blank of Narvon, Penn. "I can build them with a gas or diesel engine, and steel or rubber wheels. They have air bag suspension and hydraulic remotes."

Blank's power units can be used for cutting, raking and baling hay, chopping silage, digging vegetable crops, harvesting corn and other farm jobs that require tractor-like power.

"This power unit has an adjustable hitch that makes it easier on the horses," Blank says. "The tongue can be adjusted shorter or longer depending on the hitch weight of the implement being pulled. The idea is to keep the hitch weight that the horses carry fairly low so they're used for pulling, not carrying a heavy load," Blank says.

The power unit has operator comforts as well as many functional features. The driver sits in a comfortable padded seat that absorbs rough field conditions. The platform rides on four air shock absorbers similar to those used on semi-trailers. "I came up with this idea initially to cushion the power unit and keep it from vibrating," Blank says, "but the ride is definitely smoother for the operator, too."

Engines can have 20, 25 or 30 horsepower and that's plenty to handle a baler or chopper. His rigs have a 540 pto and two hydraulic remotes. He also sets them up with hydraulic steering, side draft control and adjustable axles. "Farmers pull different implements



Unit is fitted with air bag shock absorbers and dual hydraulic outlets powered by a gas or diesel engine.

and aren't always on level fields, so they need to set up a wider axle for hilly ground or for larger equipment," Blank says. The units can be set up for two, four or six-horse hitches.

"This power unit will basically do everything that a small tractor will do," Blank says. "It doesn't cost as much, and the operator needs good horses, which isn't a problem for people who farm that way."

Blank has built power units for several years and sold them in Pennsylvania, New York and Ohio. One of them went to South America a few years ago. He says prices range from \$9,000 to \$14,000, depending on the options that a customer wants. "I build every one myself, exactly the way a customer wants it, so it's going to be done right," Blank says.

Contact: FARM SHOW Followup, Samuel Blank, 203 Churchtown Rd., Narvon, Penn. 17555 (ph 717 768-7105 or 717 768-7663; www.sunsetcreation.com).



Michael and Eugenia Wootton installed 42 solar panels on a new metal building to cover most of their electricity needs. They figure it'll have a 5 to 7-year payback.

New Pole Barn Powers Their Farm

All the pieces fell together, and the timing was right for Michael and Eugenia Wootton to "go solar" on their Kennedyville, Md., farm. They figure the investment on the 42 solar panels installed on their new metal building will have a 5 to 7 year payback, plus it will cover most of their electricity needs for at least another 20 years after that.

The couple had a concrete pad from grain bins that had been moved away, and they planned to build a pole barn on it. About the same time they learned of opportunities to tap into savings with solar power.

Besides a 30 percent federal tax credit, Maryland offers residents a small tax credit. Additional income comes from Solar Renewable Energy Certificates. Each 1,000 kwh the solar panels produce earns one SREC, which can be sold to companies who must meet energy standards. At current values of \$200 or more per credit in Maryland, earning credits is a big incentive.

"It's very maintenance-free and fun to watch the meter run backwards," Wootton says regarding the final benefit of saving electricity costs.

The 42 panels provide enough power for 65 percent of the electricity needs for the house, barn/shop and a hunting cabin. Some months there's a surplus, and the electric company credits that to the Woottons' account to be used during the peak cooling and heating months when the solar panels don't cover all their electricity needs.

"One of the interesting things I learned is that solar cells are less efficient when it's over 90 degrees, because they generate their own heat," Wootton says. In the few months he's had the system, a day in early April generated the most power.

The solar panels are on the southern-facing



Building specs were upgraded to accommodate the solar panels' extra weight.

side of an off-center roof peak that provides room for plenty of solar panels. The building was built to specs to accommodate the extra weight, Wootton says, but existing buildings can be modified.

He suggests that farmers interested in adding solar power contact the USDA about possible grants. They must also work with their electricity provider to get approval and fill out paperwork with the state. Wootton is required to read his meter once a month and report it.

"My advice for a farmer seriously farming is to look at it as an equipment investment," Wootton says. He compares his system's upfront cost as similar to a deluxe pickup. The difference is that after the solar panels are paid for in 5 to 7 years they will still have value, providing most of his electricity needs. The main cost in future years could include replacing the inverter, which has an average 10-year lifespan.

Contact: FARM SHOW Followup, Mike Wootton (wootton@mcwphoto.com).