

Wood-Burning Grain Dryer Saved \$25,000 Last Year

Oliver Place estimates he saved \$25,000 last year in corn drying fuel costs by using a wood-burning corn dryer for about half of his 50,000-bu. corn harvest. The Oxford, N.Y., farmer got the idea from a FARM SHOW article, and tweaked the design using parts he had available.

The firebox is a 5,000-gal. fuel tank with sand on the floor, topped by flat stone and fieldstone that runs about 1 ft. up the inside walls. A 5 by 6-ft. door makes it easy to throw wood into the roomy 13-ft. long by 8-ft. dia. chamber. Two 8-in. dia. grain auger pipes and an old fan off a hammermill serve as the furnace's heat exchanger.

"By having a forced draft at the tail end, it sucks air through the furnace," Place says. He also added a modulator valve to maintain temperature. If the wood fire gets too low, the original propane burner kicks in.

Place surrounded the furnace with a 30-ton feed bin he purchased for scrap price. The fuel tank was too heavy to slide into it, so he cut the bin apart to place part of it on the ground, then covered the top and screwed it securely together.

The furnace is air tight and puts out 1.5 million btu's, drying about 100 tons of corn a day.

"Once you get a good fire going there's hardly any smoke, but it takes

three or four hrs. to get it going," Place says.

"We burn about two full cords a day," Place says. "During the day we top it off every couple of hours, and we fill it up at night so there is still fire in the morning."

Place has access to free firewood from local loggers and roadside tree cutting operations. Plus he has 200 acres of his own woods with dead and down trees. Most of the wood has dried for at least a year, though he can burn green wood when the fire is hot.

The wood is dumped right next to the furnace, and he and his crew cut wood into 4-ft. lengths and feed the fire while they are waiting for corn to unload.

Place has been pleased with how well the stove works. He plans to add an automatic draft control and expects to eliminate most of his propane usage by using the wood-burning dryer for the whole 2009 harvest. He spent about \$500 to build the dryer.

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Last year Oliver Place used a wood-burning corn dryer for about half of his 50,000-bu. corn harvest.



The firebox is a 5,000-gal. fuel tank, surrounded by a 30-ton feed bin.



Wesley Van Buren dumps the clippings from his riding mower into bags designed for 5-ft. dia. silage bales. A metal rack supports the bags while they're being filled.

"Grass Clippings" Make Good Silage

Grass clippings from your lawn can be used to make cheap silage, says Wesley Van Buren.

The Frametown, W. Va. farmer dumps the clippings from his riding mower into bags designed for 5-ft. dia. silage bales. A 5-ft. high, homemade metal rack supports the bags while they're being filled. The rack consists of a ring on top with three sets of crossed rebars welded to it.

After he fills a bag with grass clippings Van Buren ties the top of the bag tight to keep water out. Then he lifts the rack off and puts another empty bag inside the rack.

"We convert all the grass that's mowed on our farm into silage. It makes great feed for our five cows," says Van Buren, who has been making silage out of grass clippings for five years. "It takes a little extra work but I think it's worth it since we bag our grass clippings anyway. I probably spend an extra 30 minutes to fill each bag. That's not a lot of time considering how much money I save on buying hay."

When he's ready to feed the clippings, usually in November or December, he opens the bag and shovels the clippings into a fence line feed bunk or onto a small trailer that he pulls behind his ATV. Later he can either unload the grass from the trailer into the bunk or let cattle feed directly off the trailer.

"Cattle will actually quit eating grain so they can feed on the grass clippings. Our local extension agent tested the clippings for feed value and found they have a protein content of 18.2 percent, and a digestible matter content of 68 percent. That digestible matter content is higher than hay, which typically averages about 59 percent. The clippings are so high in digestible matter because we mow once a week, which always results in all fresh, new grass," says Van Buren.

The grass clippings get hot during the first three or four days they're in the bag before cooling down, which is the normal curing process, says Van Buren. "When I take the grass clippings out the following winter they still have a real damp texture. A full bag of clippings weighs 700 to 800 lbs. I can't use a loader to move a full bag because the bag would just fall apart.

"If I'm careful with the bags they'll usually last for two or three years. I've also found that smaller 40-gal. contractor garbage bags work good, too."

The bags sell for \$7.50 apiece and come in a roll that contains 15 bags, says Van Buren.

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Larry Flaharty made this "dog walker" for his 4-wheeler. "The boom allows the dog to run around the 4-wheeler without getting in contact with it," he says.

Easy Way To Walk A Dog

Larry Flaharty's dog loves to run but Flaharty has nerve damage in his feet and couldn't get out to walk the dog like he should. Fortunately, he's pretty handy, so he used a few scrap parts to create a "dog walker" for his 4-wheeler.

He U-bolted a 4 by 9-in. steel plate to the 4-wheeler's front rack and welded a section of heavy steel pipe to the plate. He slid a piece of curved exhaust pipe into the base, and bolted a piece of 2-in. PVC pipe into the exhaust pipe. He fastens a 15-ft. dog chain to an eyebolt attached through the end of the PVC pipe.

"The pipe swings freely and is long enough to clear the 4-wheeler at its furthest point," Flaharty says. The chain also clears

accessories he has on the back rack, such as a lawn seeder.

"The boom allows the dog to run around the four-wheeler without getting in contact with it," he says. "This set-up has logged many miles."

Flaharty uses the exerciser when he wants to give his dog a good run. He generally lets the dog lead.

"The thing is sturdier than it looks," Flaharty says. It's also easy to lift out the steel pipe when he wants to go for a ride without the dog.

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Some of the best new ideas we hear about are "made it myself" inventions born in farmers' workshops. If you've got a new idea or favorite gadget you're proud of, we'd like to hear about it. Send along a photo or two, and a description of what it is and how it works. Is it being manufactured commercially? If so where can interested farmers buy it? Are you looking for manufacturers, dealers or distributors? Send to FARM SHOW, P.O. Box 1029, Lakeville, Minn. 55044 or call toll-free 800 834-9665. Or you can submit an idea at our website at www.farmshow.com.

Mark Newhall, Editor

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