Made It Myself

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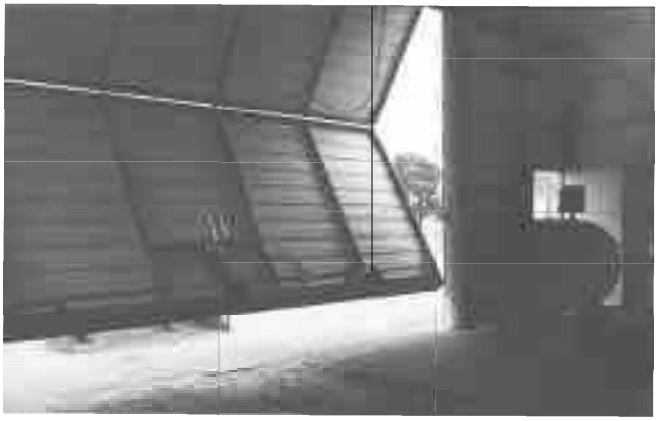

Big Bi-Fold Door Powered By 1/2-Hp Motor

When a tornado tore the sliding doors off his machine shed three years ago, Iowa farmer Charles Sorensen decided to replace them with a home-built 14 1/2-ft. high, 22 1/2-ft. wide bi-fold door that's raised and lowered by a 1/2-hp electric motor.

"I saved a lot of money by building it myself and using a small motor," says Sorensen, of Corwith.

He used 3 by 1 1/2-in., 1/8-in. thick steel tubing to make the door frame, then screwed corrugated metal onto it. He mounted a 60:1 combination gearbox-motor at the bottom of the frame. The motor chain-drives a long shaft bolted across the bottom of the door. A cable mounts on each end of the shaft and steel cable runs from the spools up to a steel beam at the top of the door.

"It works good and cost only $1,885 to build. A commercial bi-fold door of comparable size would sell for $5,000 or more," says Sorensen. "I spent quite a bit of time looking at different bi-fold doors before I built it. Most commercial bi-fold doors use a more expensive 3/4 to 1 hp motor, with the motor mounted above the door to make the door lighter. Even though I mounted the motor directly on my door, it lifts real easy because the motor is geared down with different size sprockets. Another advantage is that if something happens to the motor I can easily get at it to make repairs. I also have a better view of the cables so I can make sure they don't get frayed.

"The motor mounts on a steel plate that has slots in it, allowing me to adjust the position of the motor so I can tighten or loosen the chains.

"I didn't want to use sliding doors again because when snow gets packed against them you have to scoop it away before you can open the door. My bi-fold door lifts straight up out of the snow so I don't have to clear any snow out of the way."

Contact: FARM SHOW Followup, Charles Sorensen, 1401 250th Ave., Corwith, Iowa 50430 (ph 515 583-2171).

Labor-Saving Pig Feeder

Bob Willard, Mildmay, Ontario, got tired of always having to feed baby pigs by hand after they'd been weaned from their mothers. So he borrowed an idea from the fish farming industry to come up with his own automatic pig feeder that uses a timer and an electric motor to dispense feed at pre-set intervals.

The feeder consists of a standard fish feeder with a fiberglass hopper equipped with a rotating disc at the bottom. It's powered by a 1/40th hp electric motor controlled by a timer. He added an 8-in. dia. PVC tubing beneath the hopper. Feed is thrown by the spreader disc against the sides of the tubing and falls into a 36-in. dia. metal feeder tray that serves as a base for the unit. The feeder has a capacity of 55 lbs., and can feed 15 to 30 pigs at a time.

"It does the feeding for me, and lets me precisely control the amount and timing of feed distribution so that they gain with optimum efficiency," says Willard, who uses three of the units on pigs that are 2 to 4 weeks old. "I can set the timer to feed a little at a time throughout the day, which is better than feeding a lot at a time less frequently. For example, I can feed 3 lbs./hour several times during the day but only three times at night when pigs don't eat as much. Less frequent feeding keeps the pigs a little hungry so that they don't gorge and get scours.

"I put each feeder in the center of the pen where all the pigs can see it. When the feed pellets hit the metal base, most of the pigs jump up just like their mom was calling them and start to eat. The others see them and soon follow."

Willard bought his feeders from Fish Farm Supply Co. which supplies equipment to the fish farming industry (54 Centre St., Elmira, Ontario, Canada N3B 2V6, ph. 519 669-1096; fax 519 669-2864). Several feed companies and a university are testing the units. He estimates that they could be marketed for about $450 (Canadian).

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Big Square Bale Feeder

A Wisconsin farmer who wanted to reduce feed waste with big square bales built his own feeder for them, complete with roof, on an old wagon chassis.

Edwin Schaffner of Mondovi came up with the idea after trying to feed the square bales in a round bale feeder.

"I had to cut off a section of each bale just so that it would fit into the feeder. It was a lot of hassle. Cattle don't waste any more hay in my square bale feeder than they would in a round bale feeder, and there's no spoilage from rain or snow," says Schaffner, who feeds the bales to his 35 cows and 14 heifers.

The 10-ft. long, 4 1/2-ft. wide feeder has a swing-out gate on one side that's secured by two steel pins. He used 1-in. sq. steel tubing to build the feeder, which is chained to the wagon at each corner so it can be easily removed. A sheet metal base flares inward to help keep hay from falling out. The roof is galvanized tin and sheet metal.

"I spent $300 to $400 to build it," says Schaffner. "I use a chain to keep the wagon tongue out of manure. I mounted it on a wagon but it could also be put on skids.

"I think big square bales are the wave of the future. I can stack big square bales four high in my pole barn and get three times as many bales in it as I can with round bales.

Schaffner will put plans together for a fee if there's enough interest.

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