

## Straw Bale Grain Bins

"I got the idea from my dad," says Francis Kinze, about the straw bale "grain bins" he erected last summer to store a bumper crop of barley and oats on his farm near Pike Lake, Sask.

Kinze says he's seen other farmers use a wide variety of materials for building outdoor bins but that he's seen nothing that works better than bales of straw.

"They seal themselves tight so grain doesn't leak out and they're flexible enough not to break apart when they bend," he says. "We don't have to line the bales with anything and they hold well enough so we can put them up on both flat and uneven ground."

Kinze first dumps 300 to 400

bu. of grain on the spot he chooses for his grain bin. He then lays the first row of bales around that grain, lying end to end on their sides. He wraps the bales with two strands of barbed wire, pulling it tight. More grain is then loaded into the bin, filling to the top of the first row of bales. A second row of bales is laid on top and tied with two strands of wire, and then the rest of the grain is augered in. Kinze says the wire should be pulled as tight as possible because the circle of bales will push out somewhat as it's loaded. He doesn't connect the two rows of bales top to bottom.

"We made several bale rings to store grain. Most were about 20 bales around, and either 2 or 3 bales high. The 2-bale rings

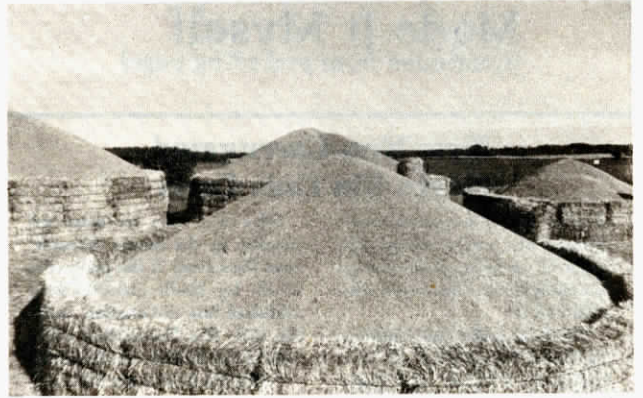


Photo courtesy Western Producer

hold 8,000 to 9,000 bu. of grain while the 3-bale rings hold 12,000 to 15,000 bu. They could be built smaller or larger," says Kinze. He's running the barley and oats through a grinder this

winter to feed to livestock, so he didn't bother to cover the grain. He runs the grain and snow, and sometimes even the bales, through the grinder together.

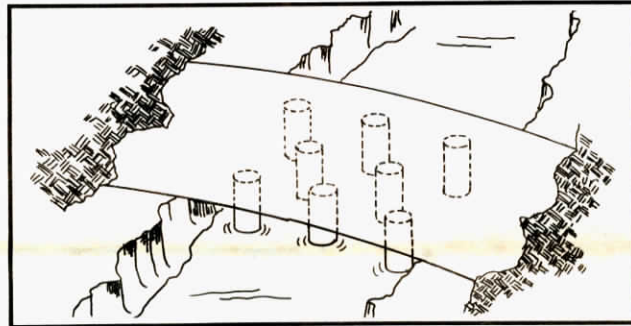
## "Telephone Pole" Bridge

Crossing the small creek that separates fields on the Robert Spereslage farm near Greeley, Iowa, used to be a big problem. Every time it rained, the old bridge — made from concrete culverts packed with dirt — washed away and had to be rebuilt.

After experimenting with other designs, Spereslage says he's now come up with the "perfect" bridge for small streams.

It consists of eight telephone poles evenly spaced across the width of the stream and covered by heavy plate steel salvaged from a downed water tower tank.

Spereslage used a tractor loader bucket filled with 1,500 lbs. of dirt to drive the poles



deep into the sides and bed of the stream. The poles were buried 5 to 10 ft. deep, with 2 to 3 ft. left above the ground. The heavy sheets of steel were then simply laid over the tops of the poles and bolted together. The ends of the sheets were buried

in the banks of the stream.

"It's solid and the steel is heavy enough and thin enough so that it won't wash away when it rains and the stream really gets flowing. It's the best bridge I've ever seen over a small stream," says Spereslage, not-



ing that he can cross the bridge with even his biggest tractors, trucks and equipment.

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## 8N Ford Replacement Motor

Robert Kraft, Little Sioux, Iowa, replaced the aging motor in his 1950 Ford 8N tractor with a V4 Wisconsin air-cooled engine he removed from an old hay baler.

"The conversion was difficult because space is limited on the tractor and a flywheel and pressure plate had to be installed for a clutch," says Kraft. "I made a 3-in. adapter from parts of two International truck brake drums to fasten the Wisconsin engine to the Ford transmission, and the tractor's length was extended 8 in. to get far enough away from the blower. I added a starter and a gas tank from an old 50T International baler which mounts up front where the Ford radiator would have been positioned."

The hood on Kraft's 8N tips forward exposing the gas tank, air cleaner, generator, car-



buretor and the rest of the key components, making the converted tractor easy to service. The muffler is designed to draw hot air off the motor, along with engine exhaust.

"It makes a nice, smooth-running rig that has as much go as a conventional 8N Ford motor," notes Kraft.

## Farmer-Built Grain Auger

Nebraska farmer, Bernard Holscher, of Bertrand, was in the market for a new grain auger but, since he didn't like the \$3,000 price tags on new augers, he built his own 8-in., 57-ft. grain auger.

Holscher patterned his auger after a commercial auger that he liked. However, unlike commercial units, his pto powered auger features wheels spaced 10 ft. apart — instead of the more common 8-ft. spacing — for added stability, and 12-ga. tubing on the bottom section of the tube where the heaviest wear occurs. In addition, the carriage arms are longer, taking weight off the tube. He also mounted all gears, chains and bearings on the lower end of the auger so repairs can be made "with your feet on the ground."

Holscher bought the tubing,



screws, chains, sprockets and bearings but fashioned the roller assembly, cap and other smaller pieces out of scrap metal and spare parts.

He estimates the total cost at \$1,200 plus 300 hours labor.