

Staffanson used his home-built high-lift loader and "sod forks" to set sod into place for the sidewalls.



Sod building is topped by wood-frame construction, anchored by a 4-in. thick concrete slab laid atop the building's 5-ft. thick walls.

"Sod Hut" Farm Shop

Big slices of prairie sod provided solid building blocks for the new machinery shop on Leroy Staffanson's Sidney, Mont. farm. He built 9-ft. high, 5-ft. thick walls using sodcutting and handling equipment he built himself.

The 25 by 50-ft. "sod hut" building is built into the side of a hill. Staffanson poured a 4-in. thick slab of concrete across the top of the thick walls to form a foundation for a 5-ft. tall wood-frame "upper story" that covers the top of the building.

"I got the idea when I saw a sod house in South Dakota that's still standing. I figured we could use sod here, too," Staffanson told FARM SHOW.

Key to success is erecting a sod structure in the sod itself. It should have a strong root structure so it'll hold together while it's worked into place. Staffanson cut sod from the lower end of a pasture that was covered with "slough grass" that he says hangs together well. He built a rearmounted, single shanked sod "harvester" with a horizontal cutter bar that runs underground parallel to the surface. A pair of cutting discs on either side cuts the sod loose in two even strips about 6-in. thick and 1½-in. wide.

Staffanson built a pair of forks that fasten to a scissor-shaped frame suspended by chain from a tractor loader to load sod onto trucks. His special-built high-lift tractor loader came in handy for moving sod into place on building walls (his high-lift loader was featured in FARM SHOW Vol. 8, No. 3 issue).

Constructing walls was simply a matter of transferring sod from the



Home-built sod knife cuts two continuous strips of sod.

truck. Walls are 5-ft. thick but could be easily varied. Staffanson let the walls settle for several months once constructed and then coated the insides with white plaster. He plans to coat the outside walls, too, so that it will be impossible to tell that the building was constructed with sod. He also plans to put heating pipe into the cement floor and heat the building with a coal-fired boiler. He built a big 17-ft. wide bi-fold door for the building that's counter-balanced with sections of cut-up grader blade and powered by a 1/6-hp. motor channelled through a 50 to 1 reduction gear. The building has 14-ft. clearance from floor to rafters and another 6 ft. to the peak. The upper portion of the building is sided with corrugated metal. The entire project took Staffanson about 2 years to complete, working in his spare time between farm work and other projects.

For more information, contact: FARM SHOW Followup, Leroy Staffanson, Rt. 1, Box 3076, Sidney, Mont. 59270 (ph 406 798-3354).



Hydraulic hoist at front of tractor raises and lowers the highcapacity conveyor.

MOVES 6,000 BU. PER HOUR

Grain Conveyor First-Of-Its-Kind

You've never seen a tractor-mounted grain mover like this one from Nebraska. It matches up a high-capacity 12-in. wide conveyor belt with 12-in. dia. auger flighting that loads grain piled on the ground.

Steve Lofquist, who runs a custom welding shop in Elwood, Neb., built it for a large elevator company. "They wanted high capacity with minimal damage to grain. This grain conveyor has moved more than 1½ million bushels of grain in the last year and a half and shows little or no wear. Any repairs — even major ones — can be taken care of quickly and all parts are standard equipment available anywhere," says Lofquist.

The conveyor is 35-ft. long and 16-in. wide. The belt has 2-in. high slats spaced every 12-in. It can be mounted on any make of tractor 60-hp. or above, and can be dismounted in 10-min. or less with a conventional 3-pt. rear hookup. The conveyor raises to a maximum height of 20-ft. on a hydraulic cylinder at the front of the tractor.

Grain is fed to the conveyor belt by a large 12-in. dia auger mounted across the lower end of the conveyor. "The use of a large diameter auger prevents damage to grain," says Loquist, noting that both the auger and



Large diameter cross auger at ground level pulls grain onto conveyor's belt.

conveyor are powered by the tractor pto. All bearings are shielded from dirt and grain. Lofquist says he has yet to replace a single bearing on the grain mover. "It's been used under all conditions. Handles any type of grain at any moisture level."

Lofquist builds the conveyor for \$7,500.

For more information, contact: FARM SHOW Followup, Lofquist Welding Inc., Rt. 1, Box 114 G, Elwood, Neb. 68937 (ph 308 785-2755).

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