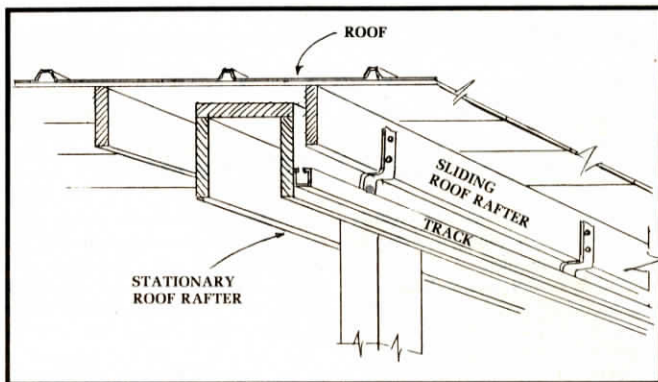




Rafters extending to ground serve as "track" for sliding roof sections.



Drawing by Bill Ralph shows details of sliding roof construction.

PERMITS LARGE TRUCKS TO DRIVE INSIDE TO DUMP LOADS

Sliding Roof Fertilizer Shed

Abe Derstine, a dairy farmer in Northeastern Pennsylvania, uses over 65,000 lbs. of fertilizer each year. He used to buy it in 80 lb. bags — about 8,000 of them. It was expensive and handling the bags required a lot of manual labor.

Abe thought there had to be a better way. He found that better way — a pole shed with a sliding roof to permit a large dump truck to drive inside and dump the load of fertilizer.

Derstine had local general contractor, Wilmer Allgyer, of Rome, Pa., draw up a few rough sketches of the idea. No formal plans were drawn up.

What Allgyer built for Derstine was basically a pole barn structure 50 ft. wide, 30 ft. deep, 18 ft. high in front and 9 ft. high at the rear. The building was divided into four equal bays with 5 ft. high partitions extending the entire depth of the building, except for a 2 ft. wide opening at the front to allow access to the bays.

The sliding roof is divided into two sections with a slight overlap where the two sections meet to keep out rain and snow. The roof is supported by five massive stationary box rafters to which the metal track is fastened. These rafters extend beyond the building, almost to the ground.

The sliding mechanism consists of two tracks for each roof section. The tracks are conventional hanging barn door box tracks but installed upside down with special hardware. The trolleys (wheels) on the track are connected to the sliding roof structure. Center rafters of each sliding section have no track but are heavily greased to allow the sliding roof to slide directly on the rafter.

Each roof section is held in place with a steel cable fastened to a silo winch near the front of the building. A portable ¾ in. drill motor is used to turn the winch. "First we tried a small hand-operated boat winch," says Derstine. "But the roof sections were much too heavy for that."

Access to the front of each bay is by two 6 ft. by 18 ft. swinging doors. The doors are secured by drop latches

near the floor and by spring-loaded chain-pull latches near the top. As protection against the strong winds, a sliding latch made from a 2x4 secures each set of doors. A strip of wood along the front edge of the sliding roof limits the inward travel of the doors when the roof is closed. Since the tall doors are secured from the inside, a small entrance door is provided at the side of the building.

The floor of the building is a slab of 4-inch concrete. A polyurethane sheet was laid down before the concrete was poured to keep out moisture. The sides and roof of the building are covered with Wheeling gal-

vanized Channel Drain sheet metal.

When in use, each bay is loaded with a different kind of fertilizer. One formula is used for plowdown, another for planting, and a third for top dressing hay fields. The fourth bay is intended for the storage of lime. In winter, when the building is empty, Derstine uses it to store hay.

For more details, contact: FARM SHOW Followup, Abe Derstine, Rt. 1, Athens, Pa. 18810 (ph 717 247-7397).

With roof lowered to ground, trucks can drive into individual bays to dump loads.



USES MOLDBOARDS TO COLLECT DIRT

Attachment Converts Plow Into Ditcher

Frederick Woznica Jr., Clay, New York, wanted to make shallow ditches in his fields to drain low spots. His tractor and loader weren't fast enough to do the job and he felt commercial ditchers were too expensive. So, Woznica designed and built an inexpensive attachment for his moldboard plow, converting it into one of the slickest low-cost ditchers you ever saw.

The earth mover fits on Woznica's International 540 four-bottom plow attaching with two brackets. The L-shaped blade is 19 in. high, 7½ ft. long, built of I-beam and steel channel iron, and holds 1½ yards of soil.

The blade gathers the dirt dug loose by the second, third and fourth moldboards as the plow is pulled through the soil. When the blade is full, Woznica raises the plow to ground level, transports the dirt to the desired area by skidding it across the field, and then raises the plow to

feather the dirt across the field or into low spots.

Woznica points out that the plow's rear gauge wheel limits how deep he can dig on a single pass. He makes 10 in. deep 'V' shaped ditches on his farm by making the initial pass, then returning on the same swath to taper the ditch on the other side. For deeper ditches, he makes several passes over the area.

He says he can pull the plow 5 to 8 mph with his International 856 tractor. He notes that his earthmover also works well for cutting small trees, brush and rocks.

Woznica would like to hear from anyone interested in manufacturing his invention.

Contact: FARM SHOW Followup, Frederick Woznica Jr., 8326 Cicero Center Road, Clay, N.Y. 13041 (ph 315 699-4157).



L-shaped blade is 7½ ft. long, 19 in. high.



Blade gathers dirt dug loose by moldboards.