

The building has a 5 ft. overhang to keep wind and snow from whipping back into the inside. There are six doors (each 12 ft. wide) on both the north and south sides. Three doors on a side slide in each direction.

## SLIDING AIRCRAFT DOORS ON SOUTH, NORTH SIDES CLOSE IN BAD WEATHER

# Two Sides Open On This Innovative Beef Barn

When Dr. Hiram Drache, well-known author, speaker, college professor and innovative cattle feeder had to put up a new beef confinement barn, he decided not to build the conventional three-sided barn with an open south side.

Instead, Drache designed a building for his farm, located near Baker, Minn., with two sides completely open but equipped with sliding aircraft doors that seal the barn up tight against strong weather. Although Drache has since sold the farm and barn, via a land exchange with the Thompson Brothers, it has been the model for many other similar barns throughout the Midwest and Canada.

"Before we built, I looked at 100 to 150 cattle confinement buildings but just wasn't satisfied with three-sided buildings I was seeing. They let snow and rain in, yet aren't cool enough in the summer. We can close our barn during snow storms or other adverse weather and open it in the summer to let cool breezes float over the backs of the cattle," says Drache. "Most engineers didn't agree with what we

*"I don't understand the logic of an open south and a closed north side."*

were doing. They nearly always try to convince farmers who are looking at it to make modifications that will not only add to the cost but have working parts that can break down. It amazes me how long it takes for good ideas to get across."

The innovative barn is 60 by 90 ft. with 3,520 sq. ft. of actual cattle pens for 220 to 240 cattle, with 55 to 60 cattle in each of four 30 by 45-ft. pens. There is a sorting room on one end and a sick bay on the other. Drache says a 5-ft. overhang around the building keeps wind and snow from whipping back in. There are six 12-ft. doors on each side of the barn. Three doors go in each direction, and "gang up" together at either end of the special airplane hangar track.

Ventilation in the barn is completely free flowing. A 16-in. clear

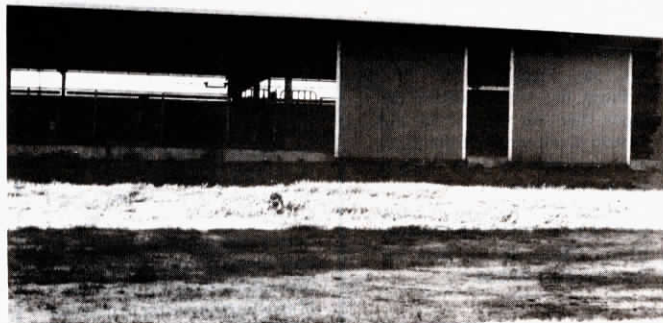


Photo taken on north side, looking south through the barn, with a couple doors pulled in place to show their flexibility.



Note posts set inside feed bunk to minimize breakage, injury.

## FEATURES "INSIDE" POSTS

# Precast Feed Bunk

A new precast feed bunk with posts inside the bunk rather than along the outside surface makes it easier to clean around the bunk with a blade or scraper.

"Cleaning equipment cannot catch or tear off posts as happens with posts mounted outside so there's less breakage and less injury to livestock," says Gregory Schmiesing, New Bremen, Ohio, farmer who designed the bunks. "Also, concrete around them makes for stronger posts. Also, the cross piece for hanging mechanical feeders is shorter and sturdier."

The new precast feed bunks are cast in a metal form with block outs to make 4 by 4-in. or 4 by 6-in. slightly tapered square holes inside the trough and the wall of the feed bunk. A square, upright post can be mounted inside the square hole so that a roof may be mounted on the

post. Also, a mechanical feeder and a feed rail may be mounted on the post.

The H-shaped sections of the feed bunks can be cast in any size lengths. But Schmiesing says the most popular size is either 7 or 8-ft. lengths. The sections can be ganged up to any length desired. The first or starter bunk section has four-holes cast for a post in each corner. The following sections have two-holes cast at each end so the posts will always be at the end of the bunk. When using a track or shuttle feeder, the track can be mounted to the end of the bunk.

Posts are inserted in the holes of the bunk and fastened by a bolt on the top and a lag screw on the bottom. Concrete mortar is placed around the post for a tight seal.

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opening at the gable of the insulated roof, and vents above the door tracks, keep air moving even when the doors are shut.

"The air is always clean," notes Drache. "This past winter, the temperature was commonly 15° warmer than outside. I have seen as much as a 50° differential on a very cold, calm day."

Drache says that, on a dry matter basis, cattle consistently converted at 8 to 1 inside the building on less than 6 lbs. of high moisture shell corn average per day. "The same ration on a year round basis outside averaged about 10.7 to 1 and, in cold spells of as long as four months, the outside conversion on a dry matter basis was 15 to 1."

The barn is slatted with a pit that Drache says should be about 10 ft. deep and have insulated walls to keep manure from freezing on the outer edges. If he built again, he says he would build less sick bay and sorting space because "it's not needed".

"Also, the barn should have been twice as large with no outside lots. But when we built it, we didn't realize the barn would produce such superior results, proving that a good slatted floor barn will pay for itself either in reduced feed conversion or manure value," Drache told FARM SHOW.

He adds that, "To this day, I have not understood the logic of an open south side and a closed north side. I would really like to have someone explain it to me. I'm not sure any law of physics can support it and bad south winds can make an open south side horrible."

For more details, contact: Dr. Hiram Drache, 326 10th Ave., S., Fargo, N. Dak. 58103 (ph 701 232-7601).



Front carrier on each door rides on inside track, the rear on outside track. Note space for air to enter barn on each side above the track.