

# Self Feeder For Cattle

Thomas Conlon and Dexter Johnson

The building plans for the self-feeders being used at the Dickinson station to handle complete mixed rations of grain and roughage are presented in this issue of North Dakota Farm Research because of numerous requests from farmers and ranchers for this plan.

A number of different self-feeder designs have been used at the Dickinson station over the past several years. This plan incorporates the best features of all those that have been tried so far. It is simple to build, and utilizes full 4x8-foot plywood sheets wherever possible for ease of construction.

It has adequate capacity, holding from 150 to 200 pounds of feed per linear foot, depending on the amount of grain in the ration being used, yet is small enough to be moved easily when necessary.

Based on self-feeder space requirements of 6-8 inches per calf, as adapted from the Nutritional Council of American Feed Manufacturers Association, this feeder will accommodate 25 to 30 head.

This type of feeder has been in use at the Dickinson Experiment Station for several years. Rations of different proportions of oats, whole, rolled or ground; barley, ground or rolled; and crested wheatgrass, bromegrass and alfalfa hay, chopped or ground, and mineral supplements can be successfully fed as complete mixed rations. Very few plugging or bridging problems have been encountered when rations have been augered into the feeders. If a blower is used to fill the feeders, the feed should go through a dust collector and drop from the collector into the feeder. Feed blown directly into a feeder has a tendency to pack, which may cause bridging problems. Grain alone, in any form, can also be successfully fed from this feeder, by adding an adjustable gate to regulate the flow of grain into the manger.

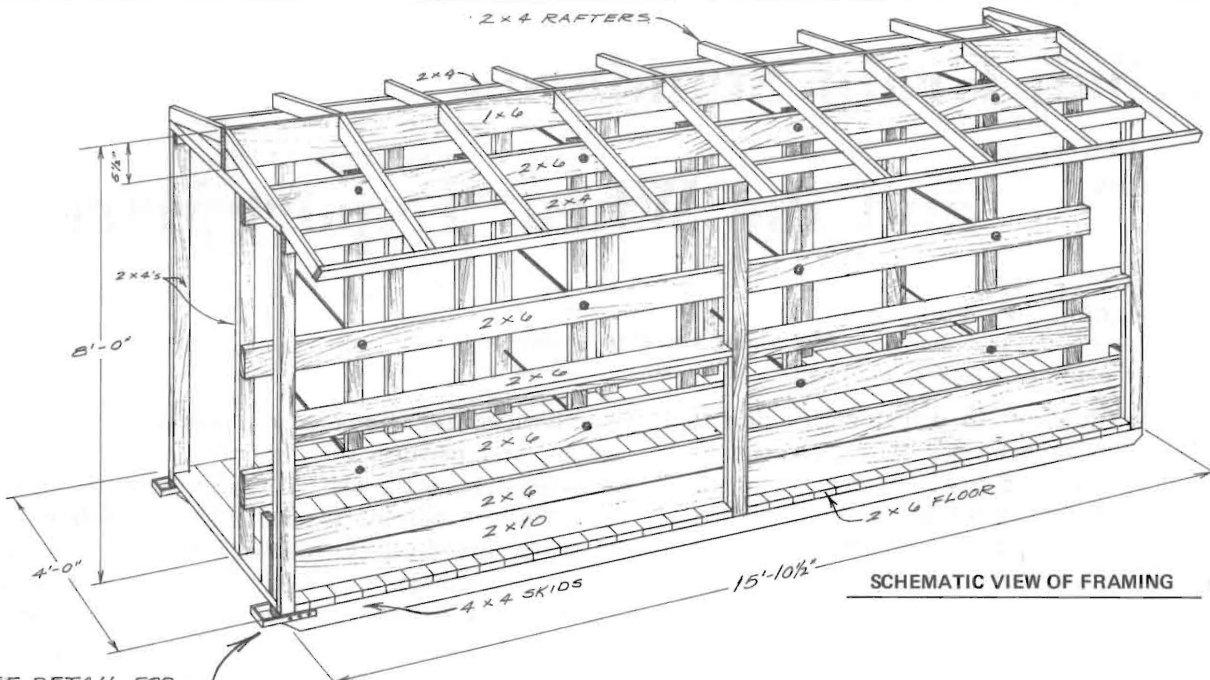
This feeder has been used to feed calves and yearlings as well as larger animals, by adjusting the height of the manger to accommodate the size of the cattle using it.

*Conlon is superintendent of Dickinson Branch Experiment Station; Dexter Johnson is Extension Agricultural Engineer.*



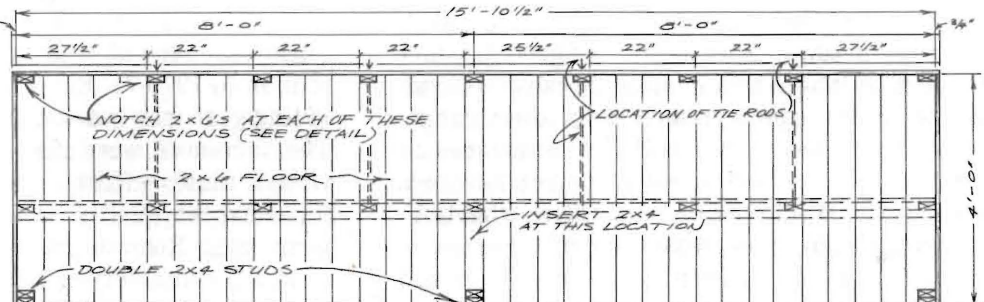
## LIST OF MATERIALS

Number	Item	Dimension
2	Skids	4 x 4 x 16 ft.
34	Flooring	2 x 6 x 4 ft.
24	Wall Studs	2 x 4 x 7'-5"
9	Rafters	2 x 4 x 5'-4"
3	Girts & Facia	2 x 4 x 16 ft.
9	Girts	2 x 6 x 16 ft.
1	Plank	2 x 10 x 16 ft.
1	Ridge Board	1 x 6 x 16 ft.
8	2 x 2 Framing	2 x 2 x 8 ft.
8	1 x 2 Framing	1 x 2 x 8 ft.
10	Wall Sheathing	3/4" x 4 ft. x 8 ft.
2	Roof Sheathing	3/4" x 4 ft. x 8 ft.
1	Cover	1/2" x 4 ft. x 6 ft.
12	Tie Rods	1/2" x 3 ft.
2	Strap Iron	1/4" x 1" x 24"
	8d Galv. Nails	Approx. 10 lbs.
	10d Galv. Nails	Approx. 3 lbs.
2	Galv. Flashing	3" wide x 6 ft. long
6	Hinges	Heavy Gauge T-Hinges

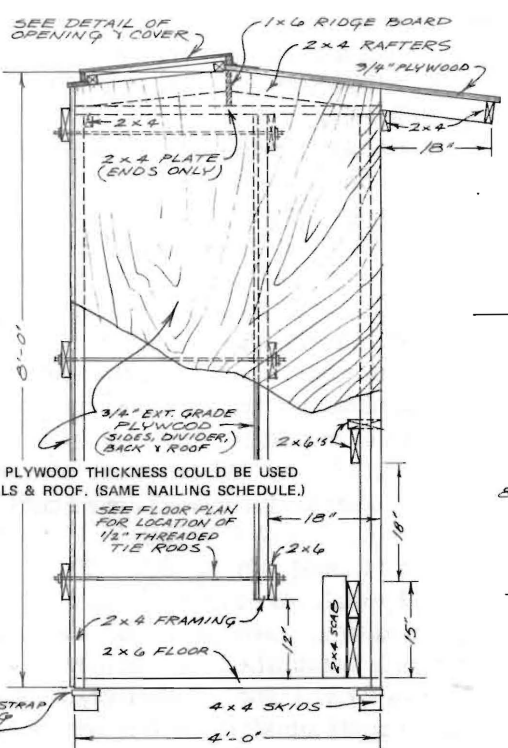


**SCHEMATIC VIEW OF FRAMING**

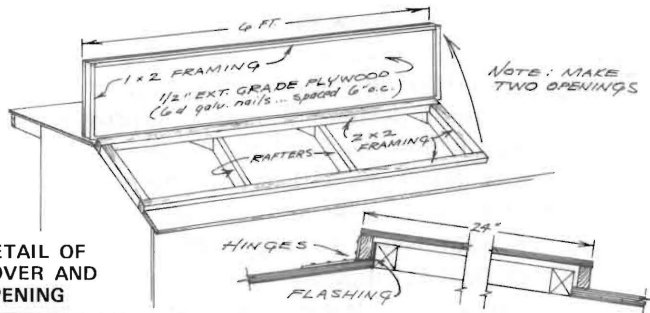
SEE DETAIL FOR NAILING FLOOR AND STUDS TO SKIDS



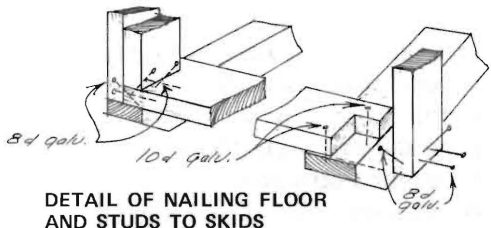
**FLOOR PLAN**



**SIDE VIEW**



**DETAIL OF COVER AND OPENING**



**DETAIL OF NAILING FLOOR AND STUDS TO SKIDS**

**NAILING SCHEDULE**

*3/4" PLYWOOD NAILED TO 2 X 4 FRAMING	8d galv. spaced 6" o.c. along edges and 12" o.c. at. intermed. supports.
2 X 6 FLOORING NAILED TO SKIDS	10d galv. ... 2 nails per end.
STUDS, RAFTERS, AND GIRTS	8d galv.