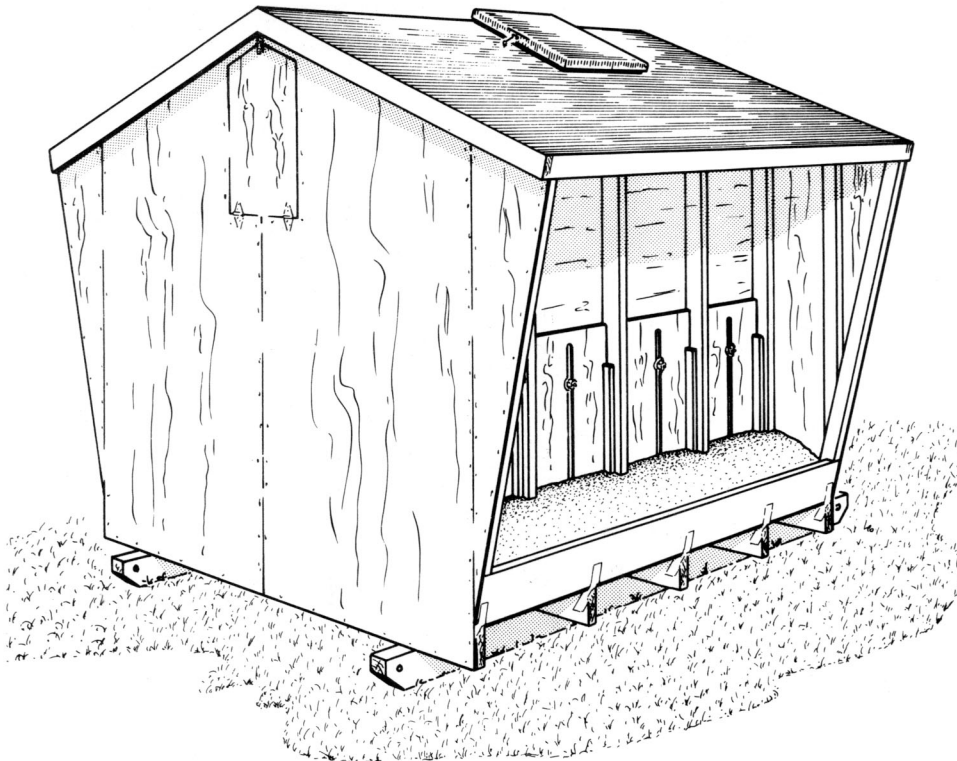


PORTABLE GRAIN SELF FEEDER

COMPLETE INSTRUCTIONS



CPS
PLAN 1649 NEW 85:03

This is a cattle self-feeder for processed concentrate ration containing no more than 10% chopped roughage (hay, straw, etc). The feeder is built on skids for towing to pasture field or feed lot.

SIZE The over-all size of this self feeder is 8 x 8 x 8 ft for easy construction with standard plywood panels. Exterior grade Aspenite flakeboard may be substituted for the plywood. Storage capacity is approximately 212 ft³. When cattle have continuous access to this feeder, it will handle from 35 to 70 head, depending on the size of the animals.

MATERIALS The main materials required to frame the feeder are one length of 4" x 6" x 18'-0" treated wood, 5 lengths of 2" x 6" x 8'-0", and 10 lengths of 2" x 4" x 16'-0". For cladding, buy 12 panels of 1/2" x 4'-0" x 8'-0" and 4 panels of 3/8" x 4'-0" x 8'-0" exterior sheathing plywood for the roof. If you substitute Aspenite for plywood, increase the roof panels to 7/16" thick. Fasten all exterior panels with hot-dip galvanized nails. For weather protection, cover the roof with asphalt shingles or galvanized steel roofing, and stain the outside walls with a good latex-based wood stain; this will usually out-perform paints when exposed to continuous weathering.

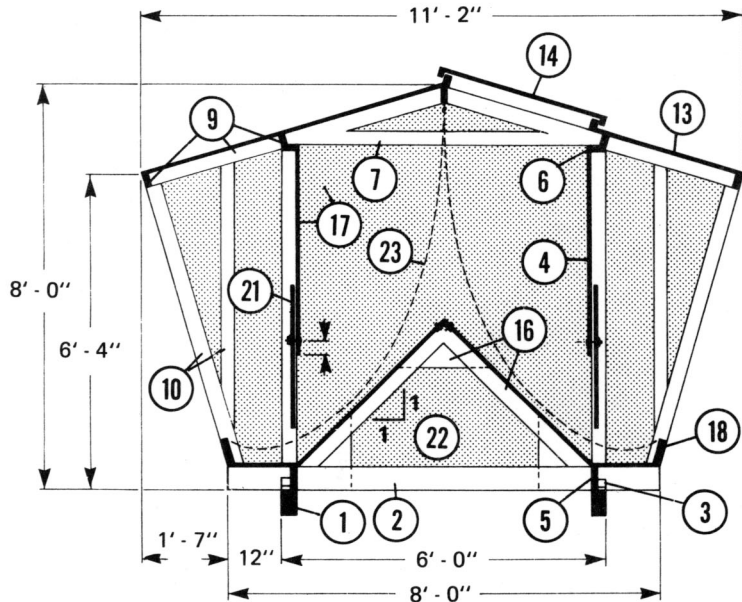
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LOCATION In locating the self-feeder in relation to other facilities such as sheds, waterers, handling corrals, etc., consider the following:

(1) DRAINAGE The feeder should be situated on high ground for good drainage away from both sides. If the site is to be permanent, build a raised concrete pad extending 8 to 9 ft beyond the feeder. A 6" high step about 12" from the feed trough front will help to prevent animals from backing up against the trough. The concrete pad should be sloped away from the feeder, and should be finished rough to prevent cattle from slipping.

(2) CONVENIENCE For easy filling from a mobile grinder-mixer or commercial feed truck, locate one end adjacent to the pasture or feed lot fence.

(3) WIND AND SNOW CONTROL Plan for wind and snow control around the facilities. Running the ridge north-south will allow the sun to reach both sides, reducing snow and ice buildup in front of the feed troughs.



- 1 skids, 2" x 6" x 9'-0", 3/4" hole at each end for towing, soak in wood preservative after cutting and before assembly
- 2 floor joists, 2" x 6" x 8'-0" @ 2'-0" o.c.
- 3 steel angle, 2" x 2" x 1/4" x 2" long, 3/8" bolt to (2), 2 - 5" spiral nails to (1)
- 4 studs, 2" x 4" @ 2'-0" o.c.; end wall studs sit on (2) and others sit on (1)
- 5 blocking 2" x 6" fitted between joists (2)
- 6 plate, 2" x 4" x 8'-0"
- 7 collar ties, 2" x 4" @ 2'-0" o.c.
- 8 ridge board 2" x 4" x 8'-0"
- 9 rafters, 2" x 4" x 6'-0" @ 2'-0" o.c. with 2" x 4" face board and blocking at plate (6)
- 10 corner reinforcing and vertical batten, 2" x 4" (notch corner for (18))
- 11 18" x 24" alternate access door at each end, 2" x 4" framing and 1" x 1" stop all around
- 12 roof hatch, 33" x 30" opening (approx.), frame with 2" x 4" and 2" x 2" cleats; galvanized steel flashing all around to suit roofing

- 13 roofing, asphalt shingles or 30 ga. galvanized steel, on 3/8" plywood
- 14 hatch cover to fit (12), 3/8" plywood with 1" x 2" cleats under, top and edges covered with 10 ga. sheet metal; tied down with 2 hooks and eyes
- 15 feeder floor, 1/2" plywood; notch around (4) and (10)
- 16 hopper joists, 2" x 4" with 1/2" plywood gussets and floor, seal peak joint with 30 ga. steel angle from under with flat head stove bolts
- 17 hopper side and end wall panels, 1/2" plywood
- 18 keeper from 2" x 10" x 8'-0" plank, angle cut to fit floor; 2 1/2" spiral galvanized nails from underside of floor (15)
- 19 galvanized steel framing anchors
- 20 2" x 2" x 1/8" steel angle, secures (18) to (10)
- 21 1/2" plywood 32" high sliding door, slides between studs (4), 1" x 2" guides each side, adjust and hold with carriage bolt, nut & washers
- 22 for feed rations containing roughage (up to 10%), increase slope to 1.3:1 and add chains (23)
- 23 heavy chain 9'-4" long suspended 24" from each end for agitation when (22) applies

