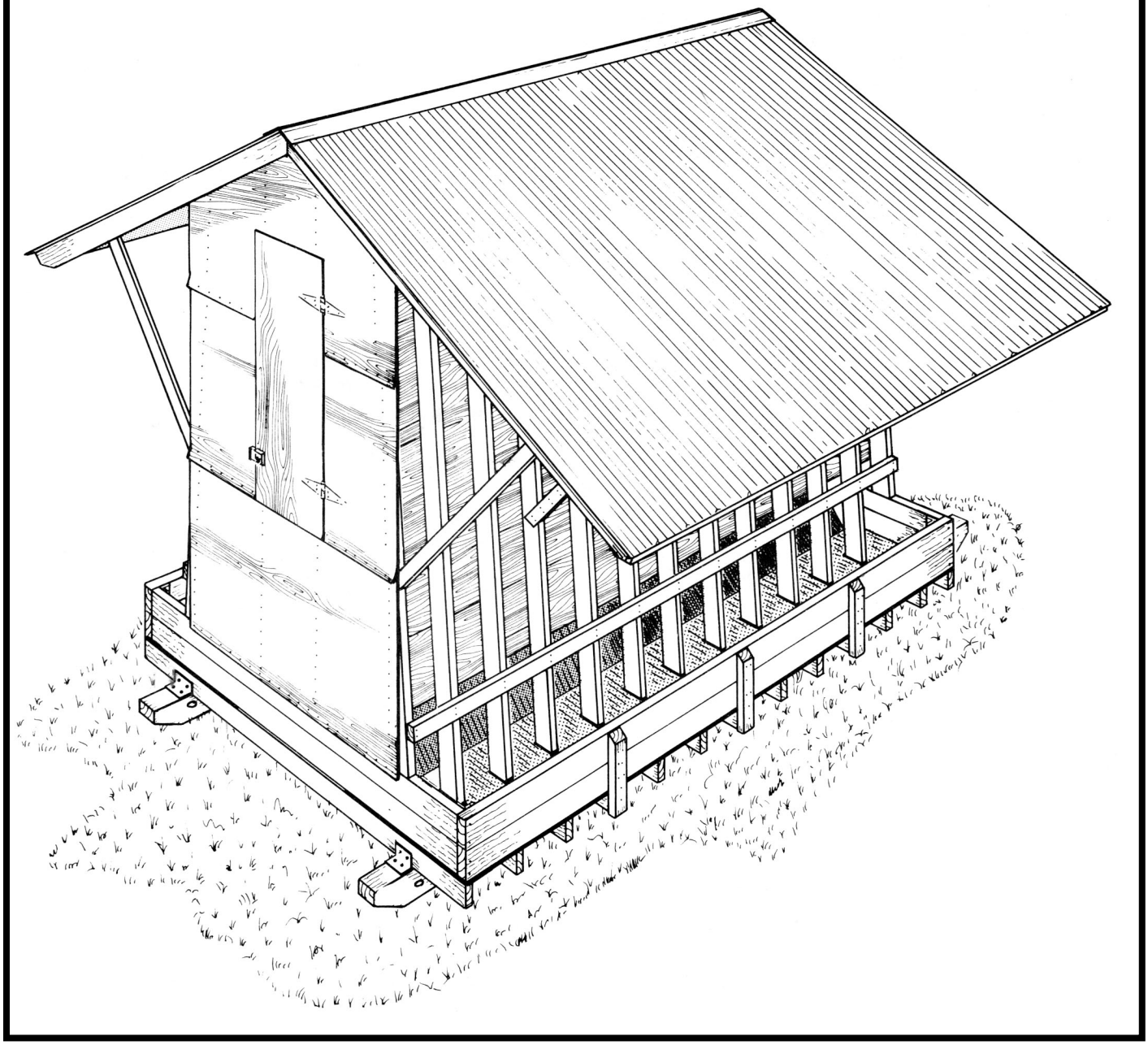
PORTABLE HAY SELF FEEDER - CHOPPED HAY

COMPLETE INSTRUCTIONS



DEVELOPED BY CANADA PLAN SERVICE

314-11

CHOPPED HAY FEEDER FOR CATTLE

CPS
PLAN M-1651 NEW 84:01

Chopping roughage feeds improves their palatability and digestibility for cattle and calves. This portable self-feeder is a convenient and labor-saving weatherproof outdoor feeding container for chopped hay, straw or chaff. It hold about 25 m^3 of chopped roughage, or 2 – 3 t, loosely packed.

The feeder is built on skids, preferably of CCA pressure-treated wood to resist decay where they contact with the ground. If there might be a need to move the feeder during winter, be sure to block up the skids with small logs or poles to prevent them from freezing solidly to the ground.

Choose a well-drained, wind-sheltered site in the feed lot or pasture. The end with the filling door can be butted up to the feedlot fence for easier filling without driving into the lot. If possible, place the feeder on a paved slab to give the cattle dry footing. In windy locations where the empty feeder could be blown over, anchor the corners with guy wires, or with cleated stakes driven into the ground adjacent to the ends of each skid.

Construction is of 'exterior sheathing' grade plywood on a stud frame. Build the floor first, with rectangular holes cut through the floor plywood to fit neatly around the wall studs when they are dropped into place later. The stud walls and rafters are built on the ground as rigid frame sections, then tilted into place and nailed to the sides of floor joists to form a strong framing unit. Plywood wall sheathing is attached to the inside of the studs to form a smooth surface for the feed to flow properly. Endwall sheathing is put on the outside of the studs for better weather protection and appearance. Aspen flakeboard sheathing (exterior grade) may be substituted for the plywood wall sheathing, by increasing the thickness a little above that specified for plywood. In either case, two coats of a good latex-based pigmented exterior wood stain will improve the appearance and durability of the outside end panelling and wood roof trim.

The A-frame floor section helps to empty the self-feeder completely with minimum labor. It may be desirable to cover the hopper section with galvanized sheet steel to make feed slide easily. The inside wall surface must be as smooth as possible. The side opening height is correct for cut feed; however, this opening can be reduced in height for self-feeding rations containing some grain. If adjustable closure panels are added, it is important they be on the outside of the wall sheathing, between the studs, so they do not interfere with feed flow.

A large door in one or both ends provides easy access for filling and for poking at the feed if it blocks up. Chopped hay feeders are prone to bridging, and require a certain amount of attention. The type of feed, fineness of cut and method of filling influence performance. Chopping the hay to a theoretical cut length of 25 mm is best. Do not pack feed in, as with a forage blower; conveyor-type elevators are best, but of course, do not provide as great a capacity.

1 feeder cross section

2 140 x 184 x 5400 mm CCA pressure treated skids, hole at each end for towing chain

3 38 x 140 x 3600 mm joists @ 400 mm oc

4 steel angle, 51 x 51 x 6 x 140 mm long @ 2400 mm spacing, 2 lag bolts to (2), 2 bolts to (3)

5 18.5 mm plywood floor

6 38 x 89 mm hopper joists @ 1200 mm oc;
38 x 89 mm strapping; 12.5 plywood floor

7 38 x 140 mm studs @ 400 mm oc, fitted through holes sawn in floor (5)

8 38 x 89 mm headboard

9 2 – 38 x 184 mm perimeter planking, 45° cove strip cut from 38 x 38 mm

10 38 x 140 mm endwall studs, 38 x 89 mm blocking at door

11 600 mm filler opening, one or both ends, door of 18.5 mm plywood

12 38 x 89 mm roof support at end wall and rafters @ 1200 mm oc; 12.5 mm plywood gussets both sides at studs (7) and rafters (14)

13 12.5 mm plywood gussets both sides

14 38 x 140 x 3600 mm rafters @ 1200 mm oc, 38 x 89 mm purlins @ 600 mm oc; 38 x 140 face board, galv. steel roofing or (asphalt shingles on 9.5 mm plywood sheathing)

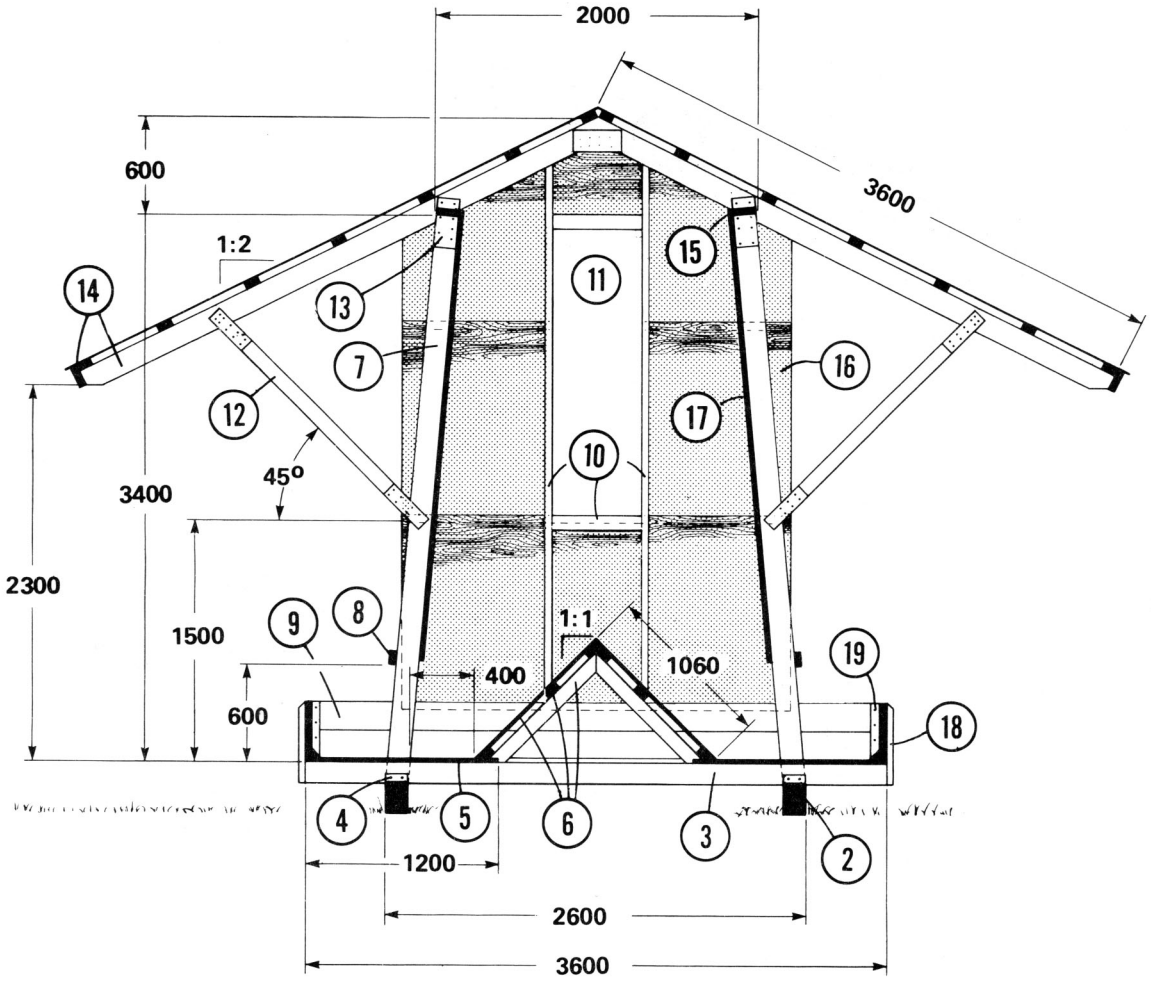
15 38 x 89 mm blocking between rafters, galv. steel joist hangers to rafters @ 1200 mm oc

16 9.5 mm plywood cladding at endwalls; at horizontal joints overlap 50 mm and clinch nails

17 1200 x 2400 x 9.5 mm plywood hopper sides

18 38 x 89 mm cleats @ 1200 mm oc

19 51 x 51 x 3 mm steel angle; carriage bolts to secure planking (9) at corners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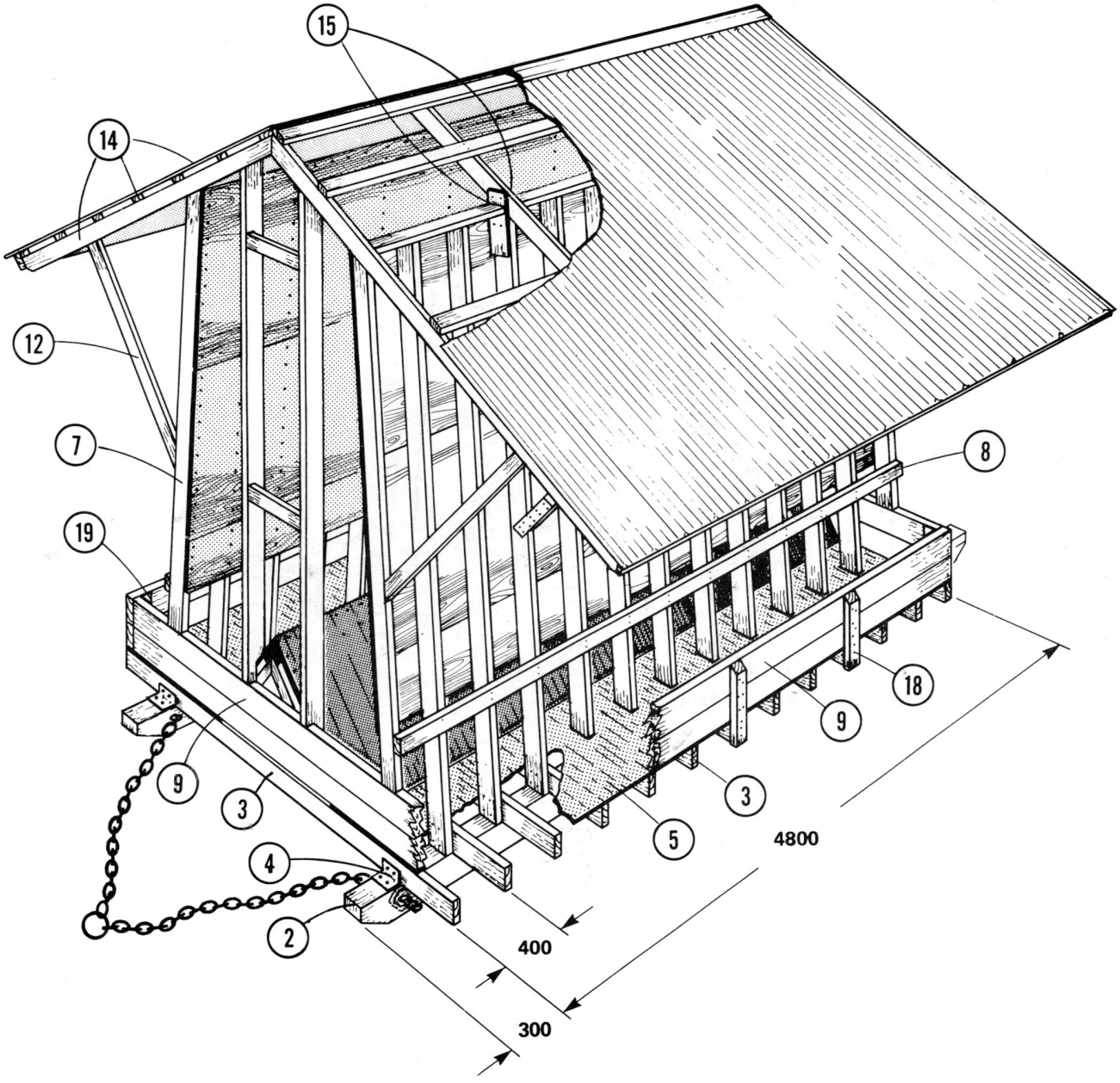
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