

# WISCONSIN BANKERS' FARM BULLETIN

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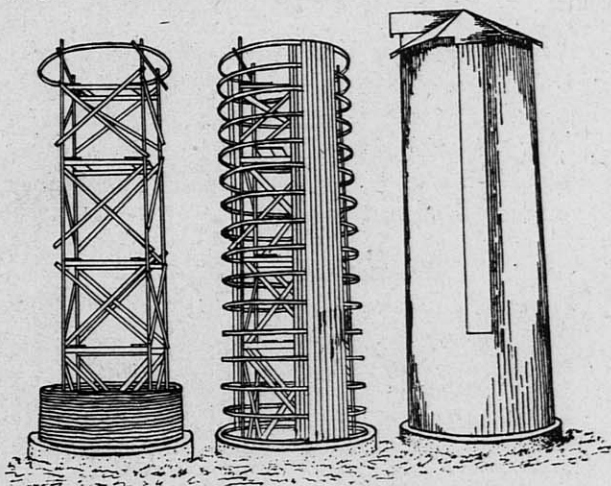
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## BUILD A SILO

By

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IF NECESSARY, SILOS CAN BE HOME-MADE  
Easily constructed, low in cost, and requires no iron hoops and  
guy ropes to hold it in place.

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# BUILD A SILO

**The silo helps to cut the feed bills.** Silage improves the ration by providing succulent feed in winter and when pastures are short. It helps to increase the profits of dairying or livestock feeding. In fact silage may help to change a small profit, or even a loss, to a good profit. Don't sell your cows, but make them produce more by feeding silage. Many silos pay for themselves every year.

**Build the silo that suits your needs.** For permanence build a concrete, stone, brick or clay tile silo. To save time and first cost, build a wooden silo. In any case, consider carefully the materials that you have at hand in your locality and the kind of labor available. Home materials are usually the cheapest and by their use you may avoid serious delay.



FIG. 2.—Cross-section through door, showing the construction of the door and the door opening for a wooden hoop silo.

Several types of silos are described in Circular No. 87 of the College of Agriculture, Madison. There is one type of silo known as the wooden hoop silo that is not emphasized particularly in that circular, which has merits for the present time. All material for this silo can be purchased at the nearest village and any farmer who can use well a hammer and saw can build this silo in a few days with the assistance of two or three of his neighbors.

**The wooden hoop silo is strong.** It needs no guy wires to hold it in place. The wooden hoops are made preferably of  $\frac{3}{8}$ " x 4" material in stock lengths. Ten pieces are used to build a strong rigid hoop about  $3\frac{3}{4}$ " thick. If your lumber dealer does not have

$\frac{3}{8}$ "x4" battens, buy 4" clap boards and make the hoops by alternating the thick edges with the thin. Ten clap boards make a hoop  $3\frac{5}{8}$ " thick. Fourteen hoops are enough for a 30-foot silo.

Matched flooring and sheathing nailed up and down make the silo wall. The flooring is put inside and the sheathing, of cheaper grade, outside of the hoops. This provides an air space. Freezing may be further retarded by using building paper between the boards and the hoops.

The following bill of lumber will build a 12'x30' silo with a shingled roof, dormer window and chute. The lumber will cost from \$200 to \$250:

- 5700 lineal ft.  $\frac{3}{8}$ "x4" battens,
- 1600 board ft. 4" flooring,
- 1700 board ft. 6" fencing,
- 370 lineal ft. 2"x4",
- 54 lineal ft. 1"x4",
- 250 board ft. roof boards,
- 2 $\frac{1}{4}$  M Shingles,
- 2 windows—4 light 8"x10".

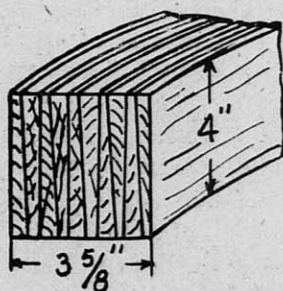


FIG. 3.—Wooden hoop constructed of clap boards.

**The hoops may be made on a rainy day.** Lay out on a clear space on the mow floor a circle, with a diameter 2" greater than the inside diameter of the finished silo. Cut 2"x4" blocks two feet long and nail them to the floor on edge at intervals of about three feet. Nail half of them with ends just inside the circle and the rest of them  $\frac{7}{8}$ " from the circle. This allows for a loose  $\frac{7}{8}$ " block between the 2"x4" and the hoop.

The hoops are built by bending the battens around the blocks and toe nailing the first round of battens to the floor at each block. Additional battens are nailed to the first with 6d casing nails until the hoop has the required thickness, keeping the splices

of the hoop as far apart as possible. Remove the hoop without disturbing any but the  $\frac{7}{8}$ " blocks.

**The forms for the concrete pit are easily constructed.** Two temporary wooden hoops and some of the roof boards or sheathing cut into 5 foot lengths and nailed to the hoops up and down make a satisfactory inside form. The hoops should be placed three feet apart and braced across with 2 x 4's so as to make the form rigid. Build the temporary hoops 4 ply thick in the following manner; place one of the wall hoops on the mow floor. Cut about twenty  $\frac{7}{8}$ " blocks 8 inches long and stand them up without nailing, inside of the wall hoop. Wind battens around inside of these blocks and toe nail them to the floor. Nail additional battens inside of the first. The removal of the  $\frac{7}{8}$ " blocks allows the hoop to be raised easily from the floor. The outside form above ground may be built by nailing battens to stakes driven about three feet apart. These battens as well as the battens obtained by wrecking temporary hoops may be used later for wall hoops.

**Build all the wall hoops before starting the erection of the silo.** Place the hoops on top of each other on the concrete foundation. (Cover page figure.) Build a scaffold of 2"x4" and boards inside of the hoops, with floors about seven feet apart. Raise the top hoop to place by means of four ropes. Level it and fasten it to cross pieces nailed to the scaffold, after it has been plumbed to the bottom hoop. Splice sheathing boards together so as to obtain four pieces equal to the height of the silo and mark off the spacing of the hoops. Nail the pieces to the top and bottom hoops. Raise the remaining hoops to place nailing them to the four boards. Plumb all hoops and fasten them to the scaffold, where necessary, to keep them plumb. Mark the door opening on the hoops and follow the design of Fig. (2). Commence at the side of the door and nail both the flooring and sheathing as you go, using two nails to a board at each hoop. Use the plumb occasionally to see that one end is not gaining.

**Build a silo to use this year.** Choose the silo that you can have finished by September 1st. Your banker will loan you the money and your lumber dealer has the material on hand. If you need help ask your county agent.