Directions for Building the Straw-Loft Poultry House

By E. G. Johnson and H. H. Alp

A straw-loft poultry house in use on a farm in Peoria county

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The STRAW-LOFT poultry house has an advantage over some of the other common types of poultry houses in that a uniform and moderate temperature is generally more easily maintained in the straw-loft house owing to the cheap insulation afforded by the straw. This factor alone is worth much in a climate so variable as that of Illinois, because losses in egg production often follow radical temperature changes.

If sanitary conditions are maintained in a straw-loft house and sparrows and pigeons are kept out, there should be no trouble from lice or mites getting into the straw. The amount of straw used in the loft varies, but as a rule about 2 to 3 feet of loose straw is sufficient. The straw may be left in the loft indefinitely.

Locating the House. In locating any poultry house the factors of major importance are a well-drained soil, good circulation of air, southern exposure, protection from prevailing winds in winter, relation to other farm buildings, allowance for future expansion, convenience in daily care and management, and the arrangement of poultry yards.

A double-yarding system should be provided so that half the range area may be in crops each year. This practice will aid materially in reducing losses in the flock from parasites and disease.

Follow Plans Closely. Building according to specifications and plans from reliable sources is the only safe and economical procedure. Correcting mistakes once the house is built is costly. The specifications given in this circular are for a type of house that has been successfully used. Properly constructed and managed, the straw-loft poultry house has proved very satisfactory.

Concrete Foundation Walls. Make foundation walls 8 inches thick, extending 1 foot below the ground, and extending above the ground enough to allow for a 6- or 8-inch fill for the floor. Use a 1:2:4 mix containing 6½ gallons of water per sack of cement. Reinforce the foundation walls against cracking, settling, and upheaval by embedding a ½-inch rod in the concrete near the bottom. Place ½" x 12" sill bolts in the concrete 6 feet apart, 2 inches from the outside edge of the wall and extending 3 inches above the top.

Fill for Floor.—To insure a dry floor, use a gravel or cinder fill, extending at least 6 or 8 inches above the ground level. Good drainage is essential for a dry floor. Allow fill to settle thoroughly before placing the concrete.
One-Course Concrete Floor. Make floor 3 inches thick and place full thickness in one operation, using a 1:2:3 mix containing 5½ gallons of water per sack of cement.

Use clean sand and gravel. After placing the concrete, allow it to stand 2 or 3 hours until it has stiffened enough to permit finishing with a wood float. To permit proper curing of the concrete, keep floor surface damp for a week or 10 days by covering with moist sand or earth.

Frame Construction. Construct framework for front and rear walls on the ground in units. Raise each unit into position and brace securely; then build side framing and rafters in place.

**Sill.**—Use a single 2" x 4" member bolted to foundation wall by ½" x 12" bolts embedded in concrete every 6 feet.

**Studding.**—Use 2" x 4" members doubled at corners.

**Plates.**—The plates are 2" x 4" members doubled in front and rear.

**Siding.**—Six-inch car siding placed vertically is recommended. To prevent cracks paint joints as boards are nailed in place. Use 6d nails, fitting joints closely.

**Rafters.**—Use 2" x 4" rafters 12 feet long, spaced 2 feet apart.

**Roof Sheathing.**—For composition roof, use 6-inch flooring boards. For sheet metal roof, use 1" x 4" roof boards spaced 2 feet apart.

**Roofing.**—Use 3-ply slate-surfaced roll roofing or 2½-inch corrugated galvanized sheet steel roofing 26 gage. Fasten sheet steel roofing with 2-inch galvanized barbed nails. Drive nails thru top of every other corrugation, using lead washers on nails having ordinary heads.

**Windows.**—For front windows use 4-light 9" x 12" barn sash; for rear windows use 3-light 9" x 12" basement sash. For open front, make frames covered with unbleached muslin or glass substitutes. Cover open front and windows with ¼-inch mesh hardware cloth.

**Droppings Board.**—Build droppings board in two or more sections in form of tables. Use 6-inch flooring boards.

**Roosts.**—Make roosts in two sections. For perches use 2" x 2" lumber slightly rounded at the top. Nail 1½-inch poultry netting to underside of perches.

**Insulation.**—For additional warmth, line wall behind roosts with 6-inch flooring or some other insulating material.

**Straw Loft.**—Use 2" x 4" members spaced 4 feet apart on which are laid 1" x 6" boards and woven wire to support straw loft. Nail 1" x 6" braces from rafters to 2" x 4" members to give added strength.
Materials for 20'-by-20' Illinois Straw-Loft Poultry House

(Have your lumber dealer estimate costs)

**Foundation:** 1:2:4 mix
- Cement, 25 sacks: $...
- Sand, 2 cubic yards: $...
- Gravel, 3¾ cubic yards: $...

**Floor:** 3" thick, 1:2:3 mix
- Cement, 21 sacks: $...
- Sand, 1¾ cubic yards: $...
- Gravel, 2¾ cubic yards: $...

**Lumber list:**
- Sills and plates, 10 pcs. 2" x 4" x 20': $...
- Studding, 31 pcs. 2" x 4" x 6': $...
- Nailing girts, 9 pcs. 2" x 4" x 10': $...
- Window sills, 4 pcs. 1" x 6" x 10': $...
- Rafters, 22 pcs. 2" x 4" x 12': $...

Roof sheathing (composition or sheet metal, optional)
- For composition roof, 600 board feet of 1" x 6" flooring: $...
- For sheet metal roof, 100 board feet of 1" x 4" roof boards: $...

**Siding:**
- 76 pcs. 1" x 6" car siding 7' long: $...
- 16 pcs. 1" x 6" car siding 8' long: $...
- 16 pcs. 1" x 6" car siding 9' long: $...
- 20 pcs. 1" x 6" car siding 10' long: $...
- 20 pcs. 1" x 6" car siding 11' long: $...
- Inside sheathing, 70 bd. feet 1" x 6" flooring: $...

**Boards for straw loft:**
- 9—1" x 6" 12' long: $...
- 9—1" x 6" 8' long: $...
- 8—1" x 4" 10' long: $...

**Roofing** (composition or sheet metal, optional)
- Composition, 6 rolls of 3-ply slate surface roll roofing: $...
- Sheet metal, 21 sheets of 2½" corrugated galvanized steel roofing, 26 gage, 12' long: $...
- 23 feet of corrugated ridge roll: $...

**Trim**, 160 lineal feet 1" x 4" B or better: $...

**Droppings board and roosts supports, 8 pcs.**
- 2" x 4" x 10': $...

**Perch bars, 8 pcs.**
- 2" x 2" x 10': $...

**Sash:**
- (Front) 8 four-light 9" x 12" (barn type): $...
- (Rear) 3 three-light 9" x 12" (basement type): $...

Hardware and nails additional

ILLINOIS STRAW-LOFT POULTRY HOUSE

- SIZE -
- 20 X 40 FEET -

FLOOR PLAN
SCALE 1/8"=1'-0"

END FRAMING
SCALE 1/8"=1'-0"

FRONT FRAMING
SCALE 1/8"=1'-0"

MUSLIN FRONTS SLIDE DOWN

2'-0" GRAVEL OR CINDER FILL

CROSS SECTION
SCALE 1/16"=1'-0"