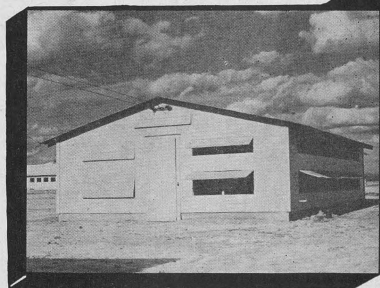
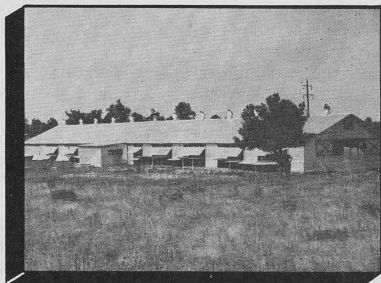


Poultry Houses in Texas



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TEXAS AGRICULTURAL EXTENSION SERVICE
G. G. Gibson, Director, College Station, Texas

Poultry Houses in Texas

W. S. ALLEN, *Extension Agricultural Engineer*

C. A. HENSARLING, *Extension Poultry Husbandman*

Texas A. & M. College System

One of the basic essentials of successful poultry production is proper and adequate housing. Based on research and experience the general features of a good poultry house should include a dry floor that can be easily cleaned, well constructed walls, and a sound roof that gives protection from rain, drafts and cold winds, adequate light, and provisions for ventilation.

Careful planning can save labor. Since labor is of great importance in poultry production, careful, considered thought should be given to the application of all devices such as mechanical feeders, automatic waterers, and feed handling equipment. Plans should be made for possible future additions where expansion is foreseeable.

The same basic construction principles are generally applicable in constructing houses for laying, brooding of replacements, and for rais-

ing broilers. Many old poultry houses, sheds or other buildings can be converted into good poultry housing at relatively small cost. The same careful thought in planning should be given to remodeling as to new construction. Regardless of whether a new house is constructed or another building is converted, it should meet the following conditions and essentials of good poultry housing.

LOCATION

Locating your poultry house properly is one of the most important considerations when planning a new layout. The drainage is an important factor and the site selected should be on relatively high ground, preferably on the south or southeast slope where natural drainage is away from the building. Keep the brooder houses and range shelters isolated from the laying houses in order to reduce possible disease spread. (Figure 1.)

FOUNDATION

Good foundations and footings are essential for any building. If stud construction is used on a continuous concrete or concrete block wall, be sure to have a wide footing and extend the foundation wall above the floor. Where pole construction is used, be sure that the posts are treated with a tested preservative to prevent rot. Adequate drainage around the foundation and away from the building is most important and should be provided for in planning.

FLOORS

Floors may be dirt, concrete or asphalt. Wood has been discarded as an impractical flooring material for most poultry houses designed for Texas conditions. Dirt floors are quite popular in Texas when used with deep

Fig. 1 Locate your houses for convenience, air drainage and sanitation. These houses are arranged so that they do not block off breezes and so that possibility of contamination from one to another is reduced.



litter management. The floor should be kept above the outside ground line and on all, except very best drained soils, use sand or small washed gravel as fill. Concrete or asphalt can be put in later if you find it necessary or desirable.

MATERIALS

Houses can be constructed of many different materials. Frame construction using poles or stud walls are most common and well adapted to most of Texas. The frame of the house can be covered with a variety of materials such as galvanized iron sheets, aluminum sheets, wood, or composition products. The aluminum is highly regarded for its reflective qualities for most of Texas.

Concrete block and commercial metal buildings are adaptable but are more generally fitted for the northern and western areas of the state.

Any wood that is subject to high moisture conditions or in contact with the ground or litter should be pressure creosoted or otherwise treated with a preservative.

ROOFS

Gable roofs are more popular in Texas as they are adapted to greater widths than the shed roof. They also can be vented easier with either continuous ridge or individual ventilators.

Good gable roofs can be constructed with relatively low pitches by using proper materials. Such reflective materials as aluminum, aluminum foil on asphalt roofing, granule mineral surface roofing, or aluminum painted metal help reduce the effects of summer heat. Other materials can be used but be sure to give consideration to the problem of reducing heat in the house as well as to all other factors. Any kind or type of roof should be installed according to the manufacturer's directions.

The roof rafters should be securely anchored to the sidewalls and cross ties. Diagonal wind braces should be fastened to the underside of rafters to hold the rafters in line.

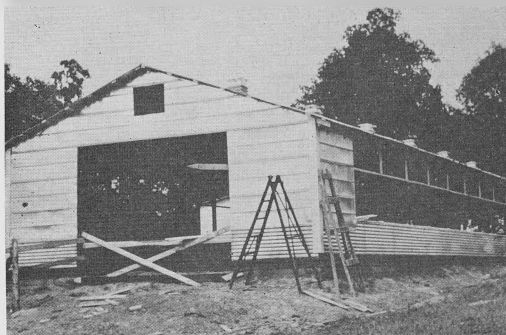


Fig. 2 A house under construction with recommended window openings, large doors for easy passage of equipment and with the site leveled prior to construction.

FEED ROOMS

The feed and feed storage rooms are generally the starting point of chore routes within a poultry building. You need to plan the feed room location and arrangement so that you can save labor in unloading feed, storing feed and distributing feed to the mash hoppers. The feed and storage rooms may be located in the middle or end of the building depending on the relationship to driveways, highways, other buildings, slope of the land and size of your building. Plan for the possible installation of mechanical feeding equipment in laying and broiler houses. The dimensions will vary with the size of your operation and the amount and type of storage desired and required. (i.e. sack or bulk storage)

Fig. 3 A recommended type of house. The feed room is situated in the center of this house. Locate yours for convenience in your planned layout and system of feeding.



VENTILATION

Adequate ventilation is important during both summer and winter to remove heat and moisture and to supply fresh air to the birds. In most of Texas, cross ventilation is essential. Large openings on both sides of the house are needed. These openings should be covered with 1 inch mesh poultry netting to confine the layers or broilers and to keep out free flying birds and rodents. In houses with gable roofs, continuous or individual ridge ventilators help remove heat and excess moisture. (See Figures 4 and 5.) In a shed roof house a slot in the top of the front wall may serve the same purpose.

Winter ventilation should provide for a constant draft-free movement of air. In the colder areas of Texas, movement of air will need to be slowed down during certain winter months. The air movement can be controlled by closing the ridge ventilators and by using windows, glass substitute covered frames, or have the windows or openings constructed so they can be closed with panels during any period necessary. Cover these openings with one inch mesh netting. In the larger houses for Central and South Texas it is recommended that the entire walls be constructed of windows and openings that can be opened or closed to provide complete ventilation or reduce the amount required during colder weather. (Figure 6.) Ventilation and some cooling effect can be provided by means of mechanical fans.

Additional cooling may be provided through the use of water sprays and fogging nozzles.

Fig. 4. Continuous ridge ventilator. Construction should insure against rain blowing in.



ARTIFICIAL LIGHT

Proper lighting is necessary for efficient production in the laying flock. As the days get shorter during fall and winter, lights are necessary for stimulating the hens to maintain high production.

Regularity and uniformity in the time of lighting is necessary. There are two systems generally used to insure this regularity—early morning lighting and late evening lighting. The most popular is the early morning system using an inexpensive time clock to turn the lights on automatically before you get up. Evening lights require a clock to dim the lights for about 15 minutes to encourage the birds to go to roost. Your poultry equipment dealer has time clock switches that incorporate these features.

General lighting recommendations for the various type houses are:

Laying House and Broiler House—(floor type) Use a 60-watt bulb on 12' center or 40-watt bulb on 10' centers. Mount at a height of 7' to 8' from the floor. Shallow dome reflectors, if kept clean increase the efficiency of the bulb.

Cage Laying Houses—Use a 40-watt bulb mounted on approximate 12' centers. Mount the lights over the alley ways. These lights should be staggered.

Wiring—Plan for adequate wiring to handle installed lights and equipment. Try to provide for future additions by having ample service (220 volts), extra circuits and all wiring to be No. 12 or larger as required. Consult your power supplier for advice on wiring for safety and service.

Fig. 5. Another type of ventilator used in the gable type roof.



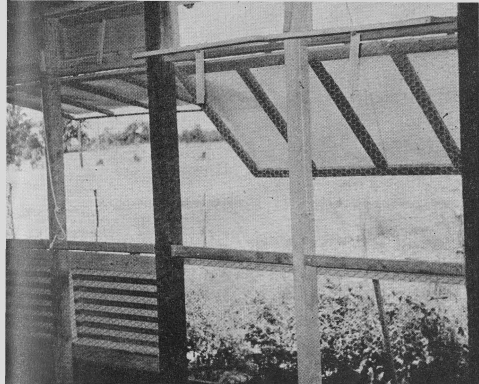


Fig. 6 "Window wall" construction provides maximum ventilating when required.

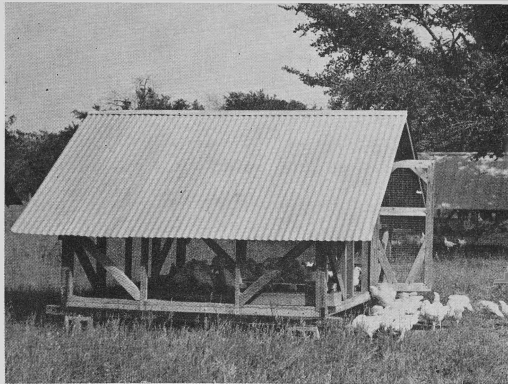


Fig. 7 An economical, proved range shelter. Ask for Plan No. 398.

Specific Considerations for Different Types

BROODER HOUSES

Brooder houses hold chicks during the first few weeks of the growing period. Depending on your management procedure, you may desire large permanent or small portable brooder houses. Regardless of the type of house used, isolate the brooding operation from adult poultry. Plan your house arrangement so that prevailing winds and water drain away from the laying stock and not towards the young stock area. Chore routes should lead to the young stock then to the adult stock.

For additional information on management consult the bulletins listed below that are available from your County Extension Agents.

- B-71 Poultry Yard Equipment
- C-298 Growing Chicks for Flock Replacement
- C-195 Homemade Electric Brooder
- MS-887 Poultry Disposal Pit

The following are blueprints that are available from your Extension Agents:

- Blueprint 111 Brooder House, 8' x 12', Shed Roof
- Blueprint 166 Brooder House — Range House, 12' x 12', Shed Roof
- Blueprint 305 Brooder House — Range House, 10' x 10', Gable Roof

RANGE SHELTERS

Range shelters are used to shelter birds from the time they leave the brooder house until they are ready for the laying house. The development of the range shelter has done much to improve the quality of young stock being grown by poultrymen. The range shelter serves a very useful purpose because it provides ideal roosting quarters as well as shade and protection for the pullets. It can be easily moved to clean range several times during the year thereby keeping the pullets on clean range and providing them with green feed. (Figure 7.)

For construction details on range shelters and allied equipment consult the blueprints which are available from your County Extension Agent.

- Blueprint 170 Range Shelter, 10' x 10', Shed Roof
- Blueprint 222 Range Shelter, 8' x 10', Gable Roof
- Blueprint 398 Range Shelter, 9' x 11', Gable Roof
- Blueprint 109 Feed Hopper
- Blueprint 309 Field Watering Device
- Blueprint 327 Poultry Waterer
- Blueprint 361 Poultry Feeder
- Blueprint 244 Range Feeder

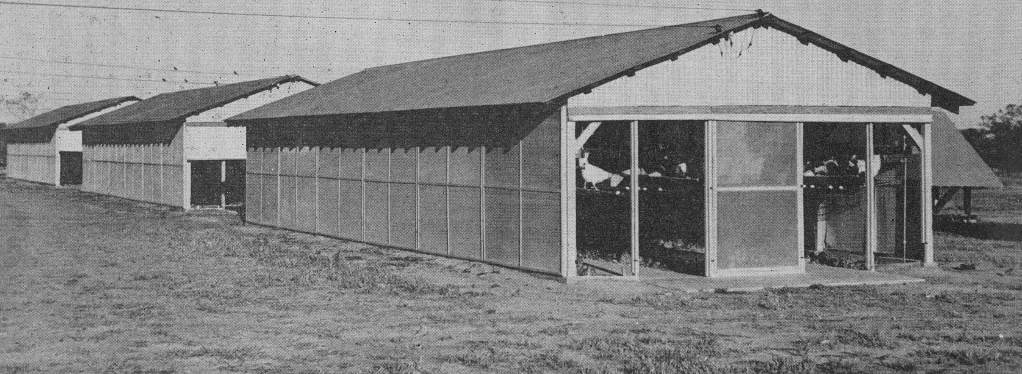


Fig. 8 The use of laying cage houses is increasing. This is one type in use on the A. & M. College Poultry Farm. Laying cage house plan No. 397 accommodates 600 birds but can't be expanded by increasing the length.

LAYING HOUSES

The size of your laying flock determines the size and type of house you need. The essentials of any good laying house should include:

1. Convenient arrangement to save labor.
2. Adequate ventilation.
3. Protection and comfort for the birds.
4. Adequate floor, roosting, feeding, drinking and nesting space.

Laying houses should be constructed to provide comfort for the laying flock from the time it is brought in from the range until the birds have finished their laying period. A location which provides for yards is not necessary, as best results are obtained when the birds are kept confined in the house at all times.

For detailed information on requirements, management, and equipment consult the following bulletins and blueprints available from your county extension agent:

- B-206 Managing the Laying Flock
- B - 71 Poultry Yard Equipment
- C-348 How to Produce Quality Eggs

For construction guides ask for blueprints:

- Blueprint 352 Laying House, 24' × 64'
- Blueprint 387 Laying House, 110' × 40'

LAYING CAGE HOUSE

The management of caged layers involves some things peculiar to this method of producing eggs. Figure 8. Houses should not be more than 26' wide and must provide **maximum** ventilation. The ground should be leveled before construction begins. This is especially important where a continuous water trough system is to be used. The roof framing must be well braced to carry the typical arrangement of cages, together with water and feed devices. Cages can be homemade but are usually factory manufactured. Be sure to select the desired type of cage early in planning stages, so as to provide necessary framing for suspension of cages.

The following publications contain details on this method of production:

- C-338 Laying Cage Management
- Blueprint 397 Laying Cage House

BROILER HOUSES

Broiler houses are essentially large brooder houses. Efficiency in broiler production begins with proper housing. The cost of houses is a primary factor affecting the cost of operation. The most popular house at the present time is a gable roof type 20' to 40' wide. The most economical houses are 36' to 40' in width. They are built in any length depending upon the capacity desired. The same type of ventilation described earlier in this bulletin ("window walls" and ridge ventilators) is important

in broiler house construction. Aluminum or other heat reflective materials make excellent wall and roof coverings for broiler houses.

For further information on space requirement and management consult the following bulletin and blueprint that are available from your county extension agent.

B-204 Broiler Production
Blueprint 386 Broiler House,
35' × 132'

POULTRY BLUEPRINTS

From Your County Agricultural or Home Demonstration Agents

- 109 Outdoor Feed Hopper for Poultry
- 244 Range Feeder for Poultry, weather proof
- 298 Sun Porch for Turkeys 10' × 12' for 210 poults
- 305 Brooder House—Range House 10' × 10' Gable Roof
- 309 Field Watering Device
- 310 Turkey Range Feeder
- 327 Poultry Waterer
- 332 Trap Nest for Turkeys
- 360 Turkey Laying nest
- 361 Poultry Feeder
- 385 Window details for Texas Poultry Houses
- 386 Broiler House
- 398 Range Shelter

POULTRY BULLETINS

From Your County Agricultural or Home Demonstration Agents

Production

- B-173 External and Internal Parasites of Poultry
- C-322 Trouble Shooting Chart for Poultry
- C-324 Guide for Controlling External Parasites of Livestock and Poultry
- C-338 Laying Cage Management
- B-204 Broiler Production
- C-274 Culling Poultry for Profit
- C-298 Growing Chicks for Flock Replacement
- B-206 Managing the Laying Flock
- B-71 Poultry Yard Equipment
- MS-887 Poultry Disposal Pit

Marketing

- B-163 Merchandising Turkeys
- B-149 Processing Poultry
- C-279 Market Demand on Turkey Hatching Eggs
- B-177 Freezing Poultry for Home Use
- L-123 Market Only Well Fleshed and Finished Turkeys

From Your County Agricultural or Home Demonstration Agents or
From the United States Department of Agriculture at
Washington, D. C.

Farmers' Bulletin

Poultry

- FB-1409 Turkey Raising
- FB-1991 Some Common Disinfectants
- FB-1070 The Fowl Tick
- FB-1652 Diseases and Parasites of Poultry

Marketing

- FB-2011 Turkey on the Table the year round
- FB-1815 Grading Dressed Turkeys