Design for a LOW-COST FARM HOUSE

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A low-cost, easy-to-build house with modern comfort?

That is a big order for a house plan, but it has been filled. A design for farm homes that has been developed at the Agricultural Experiment Station of the Alabama Polytechnic Institute meets all these requirements — low in cost, comfortable, easy to construct. And it is a flexible plan that can be adapted to suit most farm families.

A house has been built at the North Alabama Horticulture Research Station, Cullman, Alabama, to test the new design. It was done by unskilled laborers. Construction cost was $19,551 per square foot, including labor charges. Materials cost $14,500 per square foot. Not included in these cost figures are interior finish for the living area storage wall, closet doors, heating, and a septic tank. The figures, however, do include pine paneling that was used throughout the interior. It is pointed out that the cost is based on 1955 prices in the Cullman area only and were for the basic design of a four-bedroom house. Material and labor costs may be different in other times and in other areas.

Inside and outside views of the house at Cullman are shown in the photos. Two floor plans are shown here.
Two bedrooms, living area, kitchen. Right: By elimination on the living area, the plan is for a third bedroom and dining area.
Meeting the need for low-cost, comfortable homes for southern farm families has been a problem for many years. Too often, farm families have had to settle for substandard homes because of high building costs.

Aimed at solving this problem, research by the API Agricultural Experiment Station resulted in a new design that combines good housing with low building expense.

Housing needs and preferences of farm families were considered in designing the house, as well as new ideas in design to lower costs and simplify construction. The new design ideas made it possible to get many wanted features in the plan and still keep costs down.

COSTS CUT

Reduction in building cost is achieved by these changes from usual materials and methods:

1. Treated fence posts are used instead of masonry footings and foundation. This saves expense and still provides a structurally-sound foundation. A properly-treated post will last an estimated 50 to 75 years.
2. Open planing and using the roof as a ceiling saves materials and labor, yet aids in ventilation and gives the interior a spacious appearance.
3. Board and batten walls replace siding and sheathing. This makes an attractive, low-cost wall.
4. Framing is simplified by post and beam construction and standardized wall panels.
5. Molding and trim are plain, and are used only where necessary.

In short, materials are low in cost and easy to install.

BASIC PLAN

The basic plan consists of two bedrooms, a bathroom, living room with dining area, kitchen, and utility area. Each bedroom has a 7½-foot closet.

The small bathroom includes a tub and shower surrounded by three tiled walls. Storage for bathroom linens and supplies is built in.

A 16-foot row of windows is in the living room. These, with windows in the gable, the high sloping ceiling, and open planning give the living room and kitchen a spacious appearance.

The compact kitchen is efficient, with cabinets and appliances arranged in a U-shape.

In the small utility space there is room for a water heater, automatic or semi-automatic washer, and one tub.

Included in the plan are a linen closet between the bedroom doors, and an 11-foot storage wall between living room and utility area.

The back door gives access to bedrooms, bath, kitchen, and living room without going through any work space except the utility area.

A variety of heating methods can be used. A space heater or prefabricated fireplace in the living room can be supplemented by small space heaters in bedrooms and bath if needed. A hot air or hot water system with forced circulation can be used with the furnace beneath the floor or over a false ceiling in the hall between bedrooms and bath.

By facing the house south, the large windows avoid the heat of the sun in summer and capture it in winter. The overhang protects the long south wall from the midday sun in summer, and permits the sun to shine across the living room floor in midwinter to supply heat.

The heavily-insulated ceiling and side walls, together with a wide overhang, help keep the house cool in summer.

ALTERNATE PLANS

Several alternate plans are offered so that a larger house can be built or rooms added when needed. An 8-foot section can be added to the basic house on the living room-kitchen end to provide a third bedroom or an eating area and porch.

Plans for building on a masonry foundation or concrete slab are included for the basic and expanded house. These foundations cost more than the post type.

This house was not designed to meet requirements of any building code or lending agency. Rather, it was planned to provide the most usable floor area and most worthwhile functional qualities at lowest cost. Such features as the structurally-sound, treated-post foundation do not satisfy requirements of certain lending agencies. Therefore, when a loan is necessary, it is recommended that construction details be approved by the lending agency before building is begun. Alternate construction methods that meet requirements of most building codes and lending agencies are shown in the plans.

Plans for the Experiment Station house can be obtained from the API Extension Service, Auburn, Alabama. Order plan No. BB-48.