

OREGON STATE AGRICULTURAL COLLEGE

Experiment Station

W. A. Schoenfeld, Director
Corvallis

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DRAFT COOLER

Maud Wilson

Home Economist

Experiment Station

Use. The draft cooler is a cabinet with openings at the top and bottom that are connected with the outer air. It varies in efficiency with its location and method of construction, but in warm weather it provides, at best, a temperature which is only a few degrees lower than that of the kitchen. If one can not afford a refrigerator large enough for all perishable foods, the draft cooler is preferable to a food cabinet without vents. Many householders prefer the combination of a small refrigerator for protein foods and those requiring chilling or freezing, and a draft cooler large enough for all perishables. In cold weather the refrigerator need not be operated.

Objectives in Planning

Economy - in space required for cooler; in cost of constructing cooler; in cost of repairs or replacements; in time and energy required for cleaning.

Efficiency in operation

Shape of Cooler. A cooler which is narrow and which extends from floor to ceiling is to be preferred to a shorter, wider one.

Location. The north side of the house is best, east next, and south poorest. The lower vent can often be located on the north side by providing a pipe leading into the cooler.

Insulation. Insulation is useful for lessening the danger of freezing food in the cooler; for reducing the effect of the sun's rays where the cooler is located on an east, south, or west wall; and for reducing the effect of the kitchen heat upon the temperature of the cooler.

Inside Finish. Should be smooth and washable.

Doors. Should fit tightly. A latch of the type used on refrigerators is desirable.

Vents. Two vents are essential, an upper and a lower. Both should open to the outer air.

The lower vent should be placed slightly above the ground level.

The upper vent should be placed as high as possible. In the one-story house it may be placed just under the eaves, and connected with the cooler by a shaft the size of the vent.

Where the bottom of the cooler is above the work table level, it is well to put the lower vent just above or below the floor line and to connect it with the cooler by means of a shaft the size of the vent.

Large vents are more effective than small ones.

Vents should be screened against insects and vermin. In some locations a fine copper screen is advisable. The screen should be removable for cleaning.

Vents should be provided with shutters which can be reached easily from the inside.

Where the vent is beneath the floor line, there should be a cleanout opening in the pipe leading from cooler to the outer air.

Incoming air is cooler when shrubbery is planted in front of the vent.

Shelves. Shelves should offer as little resistance as possible to the air current. Heavy, rust-proof, wire shelves are desirable. Next in order of preference are shelves made of wooden slats.

Solid shelves may be used if they are 2" narrower than the cooler itself, and if alternate shelves are placed with the open space next to the wall.

Shelves should be easily removed for cleaning. They should be adjustable as to distances apart.

Combination Draft Cooler and Lift. For the home having no refrigerator, the combination lift and cooler is practical. If the kitchen is directly above a cemented cellar where canned goods and other stores are kept, the lift can be lowered to the cellar floor in warm weather, and kept on a level with the kitchen at other times. If it is impractical to locate the food storage room directly underneath the kitchen, a shaft can be built of insulating material into which the lift can be lowered in warm weather. Or if there is no basement, a cemented pit eight or ten feet deep will serve the same purpose.

Dimensions. A cooler which is adequate for the needs of most farm households has an outside width of 24", length 30", and extends from floor to ceiling. Seven shelves are required. This provides space within easy reach for all perishables, including left overs and fruits and vegetables brought in from orchard and garden. Upper shelves can be used for canned goods and seldom-used supplies.

If vegetables and thick-skinned fruits are kept elsewhere (as on the back porch) a cooler above the work counter provides adequate space for other perishables.