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HOW TO MINIMIZE CONDENSATION IN UNHEATED ROOMS

November 1942

No. R1421

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
FOREST PRODUCTS LABORATORY
Madison, Wisconsin
In Cooperation with the University of Wisconsin

HOW TO MINIMIZE CONDENSATION IN UNHEATED ROOMS

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Fuel shortages will cause many home owners to close unused rooms for the winter and possibly to leave bedrooms unheated even though they are in constant use. Reducing the heated portion of the space within a building is, of course, an effective means of conserving fuel. Lowering the average temperature of the heated areas is another. Both means will be practiced in most homes in the Northern States this winter.

Unfortunately, we can expect some trouble from condensation during cold weather in the rooms that are closed off and, unless precautions are taken to minimize the condensation, several types of damage may develop. When temperatures drop to 20° F. or more below the freezing point, frost may gather thickly on windows protected by storm sash, and at much higher temperatures where no storm sash is used. When the sun shines on these windows, the frost will melt and the water can cause any number of difficulties. Wetting the sash repeatedly may cause paint to peel, putty to loosen, and even stain and decay. Water running down on the window stool will spoil the finish. The water may also run down the plaster wall below the window and upon the floor, spoiling the finish on both. Frequent wetting may damage the plaster and cause buckling of the floor boards. During protracted cold spells moisture may condense on the interior face of exterior walls and damage the plaster, stain painted or calcimined walls, and loosen paper on papered walls.

Consistently high humidities will also cause wood trim and furniture to pick up moisture. Drawers and doors may swell, joints loosen, and glue joints be adversely affected. Clothing and other hygroscopic material will become damp, and mold might develop during subsequent mild weather.

It does not follow that these difficulties and problems will arise in every house or all of them in any one house. They are cited only as examples of damage and trouble that have developed in the past in unheated houses or unheated rooms of occupied houses. Corrective or protective measures can be used to prevent damage and subsequent maintenance expense.

Suggestions for Protection

1. Do not operate humidifiers or water pans in furnaces, or use any other means of intentionally increasing humidity in heated portions of houses in which some rooms are unheated. The ordinary sources of moisture, such as

cooking, dish washing, bathing, and laundry work, will maintain considerable moisture in the atmosphere. In fact, because of the reduction of heated area and the lower average temperature maintained, the relative humidity will probably be higher during the heating season than would occur under normal operating conditions.

2. When frost on windows melts, wipe up the water on the sash with a dry cloth before it has a chance to soak into the sash.

3. Open windows on bright sunny days and ventilate closed rooms for 2 or 3 hours. Even on very cold days, ventilation will help to draw moisture out of the rooms, at the expense, of course, of some loss of heat from the house. When drying laundry in the basement, open windows to eliminate as much of the moisture as possible by ventilation.

4. Install storm sash on all windows, including those of unheated rooms. Such sash will materially reduce heat loss from both heated and unheated rooms and will minimize the condensation on the inner glass surfaces.

Absorbent salts are sometimes used in basements and cellars to reduce the dampness and lower the humidity during the summer. This same method might be used in closed, unheated rooms, particularly spaces that are not in daily use rather than bedrooms where windows provide some ventilation. Certain chemicals and salts have a great affinity for moisture and will absorb it from the atmosphere. Calcium chloride is suggested, since it is not expensive and will take up about its own weight of moisture before it goes completely into solution. It can then be disposed of and a fresh supply used, or it could be dried over an open fire, preferably out of doors, and reused. If used, it should be placed in shallow granite pans or glass dishes, employing about 2 pounds per 100 square feet of floor space to be served. The pans should be placed on the floor, or on a table near windows, and in the coldest parts of the room. As moisture is taken up the lumps gradually dissolve. The salt will function for 1 to 2 weeks before completely dissolving.

Reducing the humidity by use of chemical salts will not entirely eliminate condensation on windows during severe cold weather, but should materially reduce it. It will not create an objectionable odor nor cause damage to furniture or clothing in the room. Spilling the solution, especially on metals, should be avoided as the solution is corrosive.