

## **Mold and Mildew: An Age-Old Problem**

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A great deal of media attention is being paid these days to concerns about mold. But this is certainly not a new issue, and a homeowner's appropriate response to the appearance of mildew in the home may not be very different today than it was twenty years ago. The best defense is a clear understanding of what mold is and what can be done about it.

Molds are fungi. Fungi thrive in microclimates conducive to mold growth. Primary factors contributing to mold colonization include moderate temperatures (35 to 110 degrees Fahrenheit), a cellulose based nutrient (wood products), and moisture (28 percent moisture content for most common construction lumbers). Mold spores are common in nature. When they find the appropriate conditions, they multiply creating colonies of mildew.

The second half of the twentieth century brought some significant changes in the ways that we build homes. We rely increasingly on manufactured construction materials like plywood, OSB, particle board, and drywall that provide ready sources of cellulose. Plaster for instance has no nutrient value. The paper backing on drywall however is an excellent source of mold food. Forced air heat with supply ducts leaking into unheated spaces tends to depressurize modern homes. And energy conservation measures like weather stripping and insulation reduce the transfer of heat that we have always relied on to dry homes out.

Because of increasing concerns about mold in homes, some manufacturers are producing more mold resistant construction materials, but it is certain that we will continue into the foreseeable future to build with materials and methods that promote mold growth. A homeowner's best defense therefore is moisture control.

Homes experience wetting from many sources, some incidental and some accidental. Simply living generates significant moisture in the home. Human & pet metabolism, bathing, cooking, and cleaning all release moisture into the air. Humid summer air infiltrating through and around windows, doors, vents, and other openings also contributes routinely to the total moisture load. And ground water easily penetrates foundations. However, we also have malfunctions like roof and plumbing leaks that create amplification sights for mold colonization.

Homeowners are advised to run bathroom and kitchen exhaust fans when cooking and bathing. Air conditioners are very efficient dehumidifiers. Chronic issues like basement dampness should be resolved sooner rather than later. Ignoring a roof or plumbing leak is a mistake.

Surface molds do little harm to house structures, but they can damage or even destroy delicate cloth or paper materials and there are some health concerns for people with allergies, asthma, or depressed immune systems. Wood rot fungi thrive in similar conditions and do significant harm to wood structures if allowed to propagate.

Mold testing has very little diagnostic efficacy. Damp areas should be dried up. If one sees or smells mold he/she does well to clean it up and eliminate the moisture source.