



## Mold & Wood Products

### No. 3: Cleaning Mold on Wood

The decision to clean and remove mold depends on many factors. In general, visible mold growing on surfaces where people may come in contact with it should be cleaned and removed.

The most important objective in any mold cleaning is to eliminate or repair the source of moisture. Even if a building is stripped of all components and every spore is killed or removed, normal background mold spores from outdoors or on replacement parts have the potential to grow if there is sufficient moisture available.

In a vast majority of cases, mold problems in homes are related to flooding or water leaks that affect many materials in the structure, including lumber. Drying the wood products exposed to moisture is an important first step in cleaning mold. In most climates, this drying will occur naturally once any standing water is removed. Providing air flow around the wood will encourage faster drying.

Mold growth cannot be supported on wood dried to below 20 percent moisture content. Lumber used in construction will typically dry to below 20 percent moisture content before the structure is enclosed.

#### Deciding when to clean mold

The amount of mold present and the likelihood of it being disturbed should be considered when determining whether to clean mold. In some cases, wood can simply be treated for mold growth with a bleach solution, then dried and sealed.

The process of removing mold from enclosed spaces could increase exposure to mold spores in the short term. High indoor mold spore counts are sometimes found when walls and floors containing mold are opened and disturbed.

Cleaning small amounts of mold from wood is relatively straightforward. Mold removal becomes more

complex when there are heavy amounts of mold on a majority of the lumber or if the building has been in service for some time and the mold originated from leaks into the building cavity. In these instances, mold clean up should be done by a professional cleaning and restoration company.

#### How to clean mold

When cleaning any mold, basic personal protection equipment such as rubber gloves, eye protection and a high-quality pollen or dusk mask should be worn.

The molds seen on lumber are largely a collection of fungal spores on the surface of the wood. Wet wiping and scrubbing the lumber will remove the mold. But simply wiping the wood can release spores into the surrounding air. A better approach is to gently spray or wet down the mold prior to removal.

There are a number of products on the market, ranging from common bleach to commercial mildewcides, which are promoted for cleaning mold from wood. However, the U.S. Environmental Protection Agency suggests using a mild detergent and water for most mold clean up. The EPA recommends wet vacuuming the area, wiping or scrubbing the mold with detergent and water and, after drying, vacuuming with a high-efficiency particulate air (HEPA) vacuum.

Common bleach and water can be used for cleaning mold. The U.S. Centers for Disease Control (CDC) recommends using a solution of 10 parts water to one part bleach to clean mold from surfaces.

Stronger formulations of bleach and water may be used, particularly to remove the discoloration caused by the mold fungi. The *Wood Handbook*, published by the U.S. Forest Products Laboratory, recommends a solution of one part household deter-

gent, 10 parts bleach and 20 parts warm water. The solution should be applied using a bristle brush or sponge to scrub the surface of the wood.

When using bleach indoors, make sure there is adequate ventilation and wear personal protection equipment. Never mix bleach with ammonia or any detergent or cleansers that contain ammonia.

If commercial products are used for cleaning mold, be sure to follow the manufacturer's instructions for use.

## **More information on mold**

You can find additional information about mold online at these sites:

*Mold, Housing and Wood*

Western Wood Products Association

**[www.wwpa.org/lumberandmold.htm](http://www.wwpa.org/lumberandmold.htm)**

*A Brief Guide to Mold, Moisture and Your Home*

U.S. Environmental Protection Agency (EPA)

**[www.epa.gov/iaq/molds/moldguide.html](http://www.epa.gov/iaq/molds/moldguide.html)**

*Questions and Answers about Stachybotrys chartarum and Other Molds*

U.S. Centers for Disease Control (CDC)

**[www.cdc.gov/nceh/airpollution/mold/stachy.htm](http://www.cdc.gov/nceh/airpollution/mold/stachy.htm)**

*Wood Handbook:*

*Finishing of Wood – Mold and Mildew*

U.S. Forest Products Laboratory

**[www.fpl.fs.fed.us/documnts/FPLGTR/fplgtr113/Ch15.pdf](http://www.fpl.fs.fed.us/documnts/FPLGTR/fplgtr113/Ch15.pdf)**

Also, see the other *Fast Facts* on mold and wood products in this series:

No. 1 – *What is Mold?*

No. 2 – *Preventing and Controlling Mold*

No. 3 – *Cleaning Mold on Wood*