

TECHLINE

Decay Processes and Bioprocessing

Mold and Mildew on Wood: Causes and Treatment

Dampness or inadequate ventilation typically results in the growth of mold or mildew on wood surfaces. Mold usually appears as black or greenish-brown patches on surfaces in humid environments. Mildew is a common term used to describe both mold fungi and their discoloration to unfinished wood. Besides causing an unsightly appearance, spores from mold fungi can cause allergies and other health concerns.

Mold fungi thrive in high humidity and are often seen on the northern exposure of wooden structures and on ceilings, joists, walls, and other surfaces in damp basements and other areas of high humidity, such as bathrooms.

Mold fungi, which cause no damage to the wood other than unsightly discoloration, are typified by their colored spores (usually green or black). Differentiating between mold fungi and decay fungi is important because decay fungi actually weaken the wood structure. Brown rot, the most destructive type of deterioration caused by decay fungi, is typified by darkening and shrinking of the wood, with eventual crumbling in advanced stages of decay.



Circled areas show mold fungi growing on wooden beams.

How can mold growth be discouraged?

- Increase ventilation in enclosed areas with fans and vents.
- Run a dehumidifier.
- Look for leaks in pipes and basements. Leaks may not be obvious; but continuously exposing wood to moisture encourages more destructive decay fungi to colonize the wood, possibly leading to structural problems.

Once the humidity problem is eliminated, mold and mildew can be removed by cleaning the wood surface with one part household bleach mixed with four parts water. This removes most of the surface mold spores while renewing the look of the wood. Rinse thoroughly with fresh water and be sure to dry the area after cleaning.

Although mold fungi do not damage the wood, they do produce numerous spores and these spores can have an adverse effect on individuals with allergies. Cleaning the wood helps to eliminate that exposure.

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References

Feist, W.C. 1975. Mildew on house paints. USDA Forest Serv. Res. Note FPL-RN-0128. 3 p.

Williams, R. Sam; Knaebe, Mark T.; and Feist, William C. 1996. Finishes for exterior wood. Madison, WI: Forest Products Society. 127 p.

Zabel, R.A.; Morrell, J.J. 1992. In: Wood microbiology: Decay and its prevention. San Diego, CA: Academic Press.

