

# **Mountain Woodworker**

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# **DEALING WITH MOLD**

We open up a cabinet, replace a bathtub, or maybe even rip up floor boards, and our reaction when we do this is "Ugh, what is that stuff?" What we see may be white, gray, brown, red, black or a number of other colors. The chances are you are looking at either mildew or mold.

#### What is Mildew and Mold?

Do you have mold in your home? Or is it mildew? Not sure? You are not alone. It's easy to mix-up mold with mildew, since both are fungi known for thriving in warm, moist areas. There are differences between the two that you should know before trying to clean, treat, or prevent either one from growing.

# Why Control Mold and Mildew?

Both mildew and mold can adversely affect your health. While many people may be allergic to mildew and/or mold, other people with respiratory issues may react to these fungi. Reactions can be mild or so severe that the reaction results in death. It is important to know what your sensitivity level to molds.

As a woodworker, knowing your sensitivity level is very important and can restrict you to selected types of wood. For example, most old barn wood, often called reclaimed lumber, have mold or mildew. If you are highly sensitivity to mold, you may want to avoid using barn wood altogether, or use appropriate personal protection equipment (PPE) and protection procedures. All reclaimed lumber should be used with care, PPE, and implemented protection procedures such as porting dust collection to the outside, and taking cool showers after working with these woods while still wearing a dust mask. It may sound extreme, but such actions could save you from a sever mold reaction.

Exposure to mold may cause signs and symptoms of respiratory allergies, including:

- Sneezing
- Runny or stuffy nose
- Dry, scaly skin

- Itchy eyes, nose, and throat
- Coughing
- Wheezing
- Chest tightness
- Shortness of breath

The severity of mold exposure depends on your age and overall health. If you do have a mold allergy, you may be allergic to specific types of mold. An allergen-specific mold test performed by your doctor can help determine what types of molds and mildew you are sensitive to.

### **Appearance**

One of the most important ways to tell the difference between mildew from mold is how each fungus looks. Mildew is typically white, gray or yellow and grows on the surface of moist, warm areas. Its texture is fluffy or powdery. On the other hand, mold tends to be green, red, or black, and usually grows underneath the surface of anything that has gotten wet. Its texture can be fuzzy or slimy.

# Where Does Each Type of Fungus Grow?

Both mildew and mold can grow quickly in warm, moist places. But each type seems to have a preference when it comes to where to start growing.

Mildew is often found on items that have damp surfaces, with fabric, paper and leather being some common household items that might end up with mildew after they get wet. Mildew is also sometimes found on the floors, walls or ceilings of areas with lots of humidity, such as bathrooms, kitchens or basements. Mildew can also grow on the surface of fruits and vegetables such as grapes and potatoes.

Mold can grow and spread quickly, causing structural and cosmetic damage, so it is a good idea to regularly inspect your home and furniture for mold. There are two primary ways to identify whether you have mold growing in your home: sight and smell.

Mold grows by extending long filaments that can appear fuzzy to the human eye. Mold can be many different colors — black, white, gray, blue, green, brown, or yellow. When mold is present on a surface, it usually appears in irregular spots. When mold growth is heavy, you may find that the material underneath is rotting due to the mold breaking down the material.

#### How Hard Is It to Get Rid of Mold Vs. Mildew?

Another difference between mildew and mold is how difficult it is to get rid of each fungus. With mildew, typically, all it takes is a mildew cleaner and a good scrubbing brush.

Mold however, is not an issue that most people should be dealing with. While mold removal is best left to professionals, preventing mold can be done without hiring anyone for the job.

### **Preemptive Solutions to Mold Problems**

Mold is a serious concern, and if you're in the process of building or renovating a home, mold resistant products will help reduce your risk of encountering mold. Remember, mold loves moisture so keeping moisture out of your house helps keep mold out of your house. The fight against mold has become high-tech and scientific.

Conditions required for mold growth:

- Air
- Water
- Food(what mold feeds on)
- Temperature between 41 and 104 degrees Fahrenheit

Here are the best ways to keep your house dry:

Start from the outside. For mold to grow, it needs moisture. So your first step is
to determine where and how the moisture is coming into your home. In most
homes, moisture comes in from rain runoff and water that seeps under the
foundation through the soil. One house that I owned actually had an
underground stream that flowed under the house.

Many homes have a crawlspace or basement that has air vents or windows. Often times these vents or windows are below ground level and have a metal "well" shield around them. Check to see if water is seeping into the crawlspace or basement around these vents or windows.

Once you have identified the outside sources, you need to determine the best way to keep the water from entering you home. Sometimes you may only need to install a French drain around the house foundation. If water flow is heavy some form of water-resistant membrane may be needed. Below ground house wrap, tar, or bentonite sheets are often used up against the foundation in conjunction with a French drain.

2. On the inside of your home. The first thing you need to do is make sure that your crawlspace or basement is kept dry. If your house has a "slab foundation" you will need a professional to help figure out how to keep the ground underneath it dry. In your crawlspace or basement you may need to install drain lines and a sump pump. You may also need to install a moisture resistant barrier under your floor joists. The best advice here is to consult with a professional on the ways that this mitigation can be done. Do this even if you plan on doing the work yourself. Your professional not only has the knowledge of how to keep the moisture down but also the zoning laws that affect mold remediation. If not done properly, you could exacerbate the problem and decrease your home's value.

Sometimes a dehumidifier will be helpful in removing moisture from the air. A commercial dehumidifier is recommended over one that can be purchased online or in a big box store. You may need an electrician to add an electrical outlet for the dehumidifier to run on.

If you are in the building or remodeling stage of your home, you can apply a protective coating directly to the framework to inhibit the growth of mold in the wall cavity after it is sealed.

- 3. **Select a moisture managing insulation.** Use an insulation that keeps yours walls dry year round that incorporates MoistureSense technology.
- 4. Follow that with a mold-resistant drywall such as M2Tech® Mold and Moisture Resistant Drywall or AirRenew® with M2Tech®. This is especially important in areas with high moisture contents such as kitchens, baths and laundry rooms. AirRenew drywall also helps clean the air by absorbing formaldehyde.
- 5. Don't forget the walls behind decorative features like tile backsplashes or shower surrounds. While tile might seem to be waterproof, it is not.

  CertainTeed's <u>Diamondback® Tile Backer</u> protects tile installations and the walls behind from moisture intrusion.

When it comes to combating mold and mildew at home it is particularly important to pay special attention to areas of high moisture including kitchens, baths, laundry rooms and basements.

# **Cleaning up Mold**

If mold already exists in your home, you need to remove it first before doing any of the preemptive methods described above.

Before you even start trying to remove mold there are several steps that need to be taken first. The first step is to gather the following:

1. Obtaining and wearing the appropriate protective equipment

- a. A mask designed to filter out mode spoors
- b. Wrap around eye protection
- c. Waterproof gloves
- d. Shirts with long sleeves and button up collar
- e. Long pants
- f. Shower cap or similar to keep spoors out of your hair
- 2. Plastic sheeting (plastic drop cloths work great for this)
- 3. Masking tape
- 4. Fan
- 5. Appropriate cleaning chemicals
- 6. Two pails or large containers
- 7. Appropriate cleaning materials such as rags, brushes, etc.

There is one thing that you need to realize about mold. It is often believed that mold grows by spreading out much like a weed. This is only one part of how mold grows and while you need to address this process, it is more important to realize that mold contains spores. Think of these spores as miniature volcanoes which can explode at the lightest touch, by even the slightest of breezes. When they explode, spores within these miniature volcanoes are spewed outwards and spread the mold. Because mold spoors are extremely light they can travel long distances and are also easily inhaled. Whenever you see mold, especially "black" mold, you need to leave it alone until you are ready to remove it.

Once you have all of the above you will need to do the following

- 1. Determine where the mold is and how you will approach leaning the area
- 2. Put the plastic sheeting down
- 3. Cover all the walls and doors with the sheeting
- 4. Cover the ceiling and surfaces with the sheeting
- 5. Use the making tape to tape down the sheeting.
- 6. If a window can be opened, open it and place the fan in the window to blow air out of the room.
- 7. Remove and throw out (through the window) any carpet in the room. If you cannot throw it out the window, place the carpet in garbage bags and seal the bags and then remove the bags to the outside.
- 8. Remove towels, hand cloths, etc. and wash them in a solution of soap and bleach. If there is mold on the towels/cloths, toss them out.
- 9. If there are items on the counter tops, shelves, or hanging on the walls, remove and wash them as you did for the towels.

Now it's time to get down to cleaning. There are many products on the market for removing mold. Among the less expensive ones are ones that contain biocides and disinfectants such as OxB. Finding the product that works best for your situation and the type of mold you have, the right chemistry is a necessity.

If milder cleaner preferred and the infestation is small, consider natural mold and mildew killers. Fill a spray bottle with solutions containing natural solvents, like:

- Hydrogen Peroxide Your best choice is a 3 percent solution. It makes a cheap and easy-to-use spray. Be careful not to spill on fabrics or carpet.
- White Vinegar –Use this natural household cleaner full strength or diluted with equal parts warm water. Use after cleaning as a preventative treatment by spraying on affected areas.
- **Baking Soda** Dissolve 1 teaspoon of baking soda in 1 cup of water for a safe, effective mold cleaner. You can also combine baking soda with white vinegar.
- Borax
- Tea tree oil

Using bleach on mold only works on hard surfaces. The chlorine in bleach can't penetrate porous materials.

Spray moldy areas with your cleaning solution. • Wait 10 minutes before scrubbing mold with a bristle brush. • Rinse with a clean cloth, and repeat the process. • After a final rinse, leave sink cabinet doors open to fresh air. • Speed up the drying process with fans directed into the cabinet.

While you can handle many mold cleanup jobs, don't take on a project that can endanger your health. It's not worth the risk. Leave mold removal to certified professionals if:

- The affected area is larger than 3 square feet.
- Interior cabinet surfaces are hard to reach and clean.
- The mold appears to be black and slimy.

#### **Prevent Mold and Mildew**

Here are some tips for efficient ways to prevent mold and mildew in your home:

- Keep all surfaces and areas dry and moisture-free.
- Maintain a humidity level of about 40-50% inside the house (a dehumidifier provides the most advantageous solution for ensuring appropriate indoor humidity),
- Regularly inspect your heating and cooling systems,

- Change air filters regularly
- Keep air ducts clean and in good condition,
- Ensure good air circulation inside the home,
- Fix any leaks in the bathroom, kitchen or other areas, etc.
- Inspect your home regularly for mold and mildew,
- Remove mildew-affected plants and weeds as soon as you notice them.
- Use an indoor air purifier

### **Commercial Cleaners**

It is possible to buy mold and mildew cleaners. Most of those at big box stores are not sufficiently strong to kill the mold in your home. To achieve success you will need a cleaner(s) that come in two forms – aerosol bombs and liquid.

Visit this link for step-by-step instructions on Mold Remediation in the home: https://www.familyhandyman.com/cleaning/mold-and-mildew/how-to-remove-mold/