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Cooperative Extension's Role in Mold and Moisture Education

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Cooperative Extension's Role in Mold and Moisture Education

Abstract

This article explores the role of Extension educators in mold and moisture education. Media attention has served to raise the consciousness of the general public regarding mold issues; however, it has also served to create a sense of alarm. Increasingly, Extension professionals are being asked to address mold and moisture issues in residential settings. Extension can help clientele in four critical areas: situational perspective, tools to assist, best management practices, and moisture remediation.

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Introduction

Mold is an issue of concern in all areas of the nation and is of particular concern in Southern states, with their warm, humid climates. Increasingly, Extension professionals across the country are being asked to address issues related to excess moisture and resulting mold in residential settings. Media coverage of mold litigation and new scientific studies concerning possible health effects associated with mold have increased the general public's concern related to mold (Wiggins, Kirby, Smoak, & Zaslow, 2004).

While this attention has increased the overall consciousness of the general public, it has also served to create sense of alarm. Accurate information related to health issues and mold as well as sound education concerning moisture causes and controls are greatly needed (Wiggins et al., 2004).

Extension can help provide solutions to homeowner's moisture problems in four critical areas: putting the situation into perspective, providing tools to help, best management practices, and mold remediation.

Putting the Situation into Perspective

One of the most important roles that Extension plays is helping to put the mold/moisture situation into perspective for the homeowner. The attention on mold brought by the media has really caused some homeowners to become overly anxious when they find mold in their home. While mold should not be allowed to grow in the living environment and is an indication that a problem exists, there is no need to panic. Homeowners instead should focus on the cause of and solution to the problem.

Many homeowners have questions concerning testing their home for mold. Extension professionals can explain the issues and limitations of mold testing. The U.S. Environmental Protection Agency (EPA) advises that mold sampling usually isn't warranted if one can see visible mold growth. Homeowners need to know that currently there are no threshold limits for mold or mold spores, thus sampling a home for mold will not tell the homeowner whether or not their home's mold sample falls within an acceptable standard for mold exposure. Likewise, mold identification is generally unnecessary because all molds have the potential to cause adverse health reactions, especially in individuals with pre-existing sensitivities.

Regardless of the type of mold or amount, it should be removed from the living environment. The

EPA also advises of concerns related to mold sampling protocols (U.S. Environmental Protection Agency, 2001). In instances where mold sampling is appropriate, Extension can provide education concerning how to select a professional for mold sampling.

Providing Tools to Help

Three important tools that Extension educators can use to assist homeowners with moisture problems are a moisture audit, a moisture meter, and a humidity gauge.

A moisture audit is a written tool that takes a homeowner through various parts of his/her home and helps in identifying potential problems. This audit also provides valuable information to the Extension professional who may be assisting the homeowner in his/her investigative process.

The second tool is a wood moisture meter. When the meter's probes are inserted into a piece of wood, it will display a reading that indicates the moisture content of the wood. This reading gives the homeowner important information regarding moisture. Wood with moisture content of 20% and above is susceptible to decay.

The final tool that can be useful is a humidity gauge. This can be used to monitor the indoor humidity level in a home. If possible, humidity levels should be between 30 and 50%. High humidity levels can contribute to mold growth.

Best Management Practices

The most important principle that Extension educators must address is that mold is a result of excess moisture, and so, to control and eliminate mold, one must address the moisture problem. Of all the requirements that mold needs to thrive, moisture is the only one that can truly be controlled by the homeowner.

Homeowners should be equipped with a basic understanding of moisture movement and how to control that movement. Controlling the moisture movement methods of bulk transport, capillary suction, air movement, and vapor diffusion will eliminate the moisture that feeds the mold growth (Listeburek & Carmody, 1994).

Finally, consumers need to understand where in their home they are likely to find moisture problems and best management practices related to construction techniques and remediation practices that can help eliminate the moisture. Items such as drainage, gutter management, vapor retarders, ventilation, landscaping and grading, and flashing are all methods to controlling moisture. Proper selection and maintenance of the heating ventilation and air conditioning system is also vital to controlling moisture.

Mold Remediation

One of the most difficult issues for Extension professionals to address is mold remediation. In some instances, homeowners can perform the work themselves. In others, because of issues related to health or issues related to the size and scope of the work to be done, professional help is advisable. The first step of the remediation process is always to correct the moisture problem. Once that is corrected, homeowners can begin the process of clean up.

During the mold remediation process, homeowners or professionals will need to determine what is cleanable and what is not. Non-porous surfaces such as metal and plastic can be cleaned and treated with biocides and then allowed to dry. Semi-porous surfaces, such as wood, and porous surfaces, such as carpet, furniture, and dry wall, may require special cleaning. In some instances, particularly with porous surfaces, component removal and replacement are necessary.

Whatever the scope of the project, it is essential that proper precautions be taken by workers or the homeowner during remediation, such as using proper protective equipment, for example, gloves, goggles, respirators, and protective clothing. Remediation practices must include containment measures to ensure minimal mold dispersal. Extension professionals can assist homeowners by providing educational resources related to best management practices in mold remediation.

Summary

Moisture can cause a billion dollars of damage to homes each year. Much of the damage to homes and worry about mold can be avoided if homeowners will take preventive steps to protect their home from moisture. Prevention includes conducting routine home inspections and performing regular home maintenance.

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