Fact sheet: The Environmental Relative Moldiness Index

Summary

A research tool, called the Environmental Relative Moldiness Index (ERMI), has been developed and is being evaluated in research studies by the U.S. Environmental Protection Agency (EPA) Office of Research and Development (ORD). In the research studies, dust samples are collected in a home and the DNA from some of the many molds contained in the house dust is extracted and analyzed. The DNA results are then used to characterize the concentrations of the molds in the dust sample. The sample results are then compared to the ERMI, an index or scale of moldiness. The analysis can be used by researchers in the U.S. to estimate the amount of mold in a home as well as indicate some of the types of mold that are present. As research continues, the index will be refined.

EPA's mold remediation guidance is based on physical inspection for mold and water damage (http://www.epa.gov/mold/mold_remediation.html). EPA does not recommend that homes routinely be tested or sampled for mold. Testing may be performed to support research activities. Testing may also be useful to help identify or characterize the magnitude of specific mold problems in some indoor environments.

Background - Why is EPA ORD conducting research to develop a moldiness index?

The Institute of Medicine report *Damp Indoor Spaces and Health* (http://www.iom.edu/Reports/2004/Damp-Indoor-Spaces-and-Health.aspx) recommends the development of "More rapid measurement methods for specific microorganisms that use DNA-based and other technology". The report also indicates that the "Application of the new or improved methods will allow more valid exposure assessment of microorganisms and their components, which should facilitate more-informed risk assessments." After ten years of research, EPA patented a DNA-based method called the mold specific quantitative PCR (MSQPCR) for quantifying molds. The "application" of the MSQPCR technology in real-world indoor environments has resulted in the development of the ORD ERMI research tool.

For more information on MSQPCR and a list of publications visit: http://www.epa.gov/microbes/moldtech.htm

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For more information on mold visit: EPA mold website: www.epa.gov/mold