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INNOVATIVE RESEARCH FOR A SUSTAINABLE FUTURE

The Environmental Relative Moldiness Index

Summary

A research tool, called the Environmental Relative Moldiness Index (ERMI), has been developed by the U.S. Environmental Protection Agency, Office of Research and Development (ORD). Dust samples are collected in a home and DNA from mold in the dust is analyzed. The sample is then compared to the ERMI, an index or scale, which was developed for use in the U.S. The analysis can be used by researchers 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. The ERMI has not been validated for routine public use in homes, schools, or other buildings.

EPA does not recommend that homes routinely be tested or sampled for mold. Testing may be useful to help characterize or identify mold problems in some buildings. Physical inspection for water damage and mold is a key part of current EPA mold remediation guidance.

Background - Why develop a moldiness index?

The Institute of Medicine report, Damp Indoor Spaces and Health (2004), recommended the development of “More rapid measurement methods for specific microorganisms that use DNA-based and other technology.” This report also indicated 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 such a method called mold specific quantitative PCR (MSQPCR). MSQPCR is a DNA based method for quantifying molds. The “application” of the MSQPCR technology has resulted in the development of the ERMI.

Technical Contact:

David Kryak, Ph.D.

EPA National Exposure Research Laboratory

kryak.davidd@epa.gov

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- www.epa.gov/microbes/moldtech.htm
- www.epa.gov/mold