

# **SICK BUILDINGS IN HAWAII INDOOR AIR QUALITY**

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## **INDOOR AIR QUALITY**

- **COMPARE THE INDOOR AIR WITH THAT OUTSIDE**
- **INCLUDES**
  - **VOC'S from CARPET, GLUES, PLASTICS**
  - **ALLERGENS & MYCOTOXINS**

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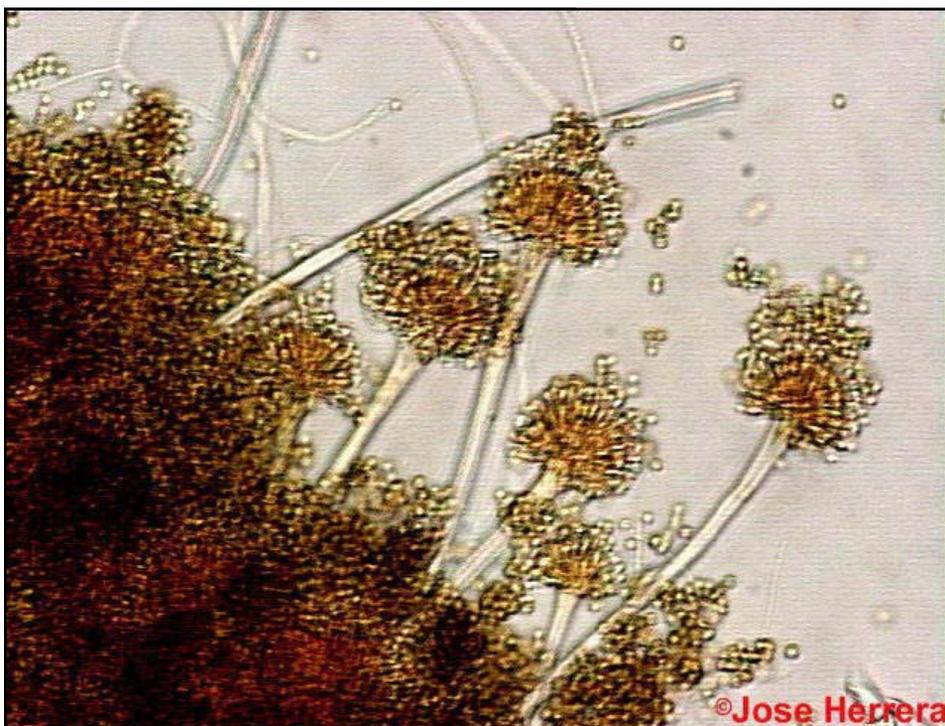
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## **MOLDS ARE EVERYWHERE**

- **1.2 MILLION OR SO SPECIES**
- **200,000 IDENTIFIED AND CLASSIFIED**
- **WE'RE CONCERNED WITH 10 or 12**
- **INDOOR AIR SHOULD MATCH OUTDOOR AIR**

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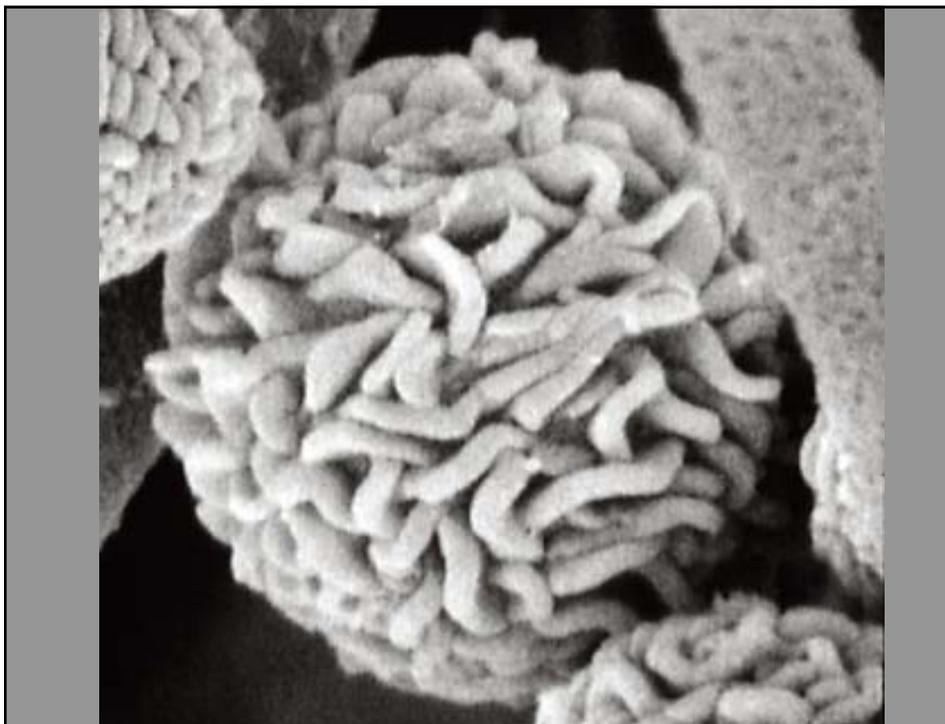


# NO MOLDS ARE GOOD FOR PEOPLE

- **ALLERGIC REACTIONS**
- **IRRITATIONS-**
  - **NERVE**
  - **MUCOUS MEMBRANE**
- **REACTION to ODOR**
- **INFECTIONS**
- **TOXICITY- MYCOTOXINS**

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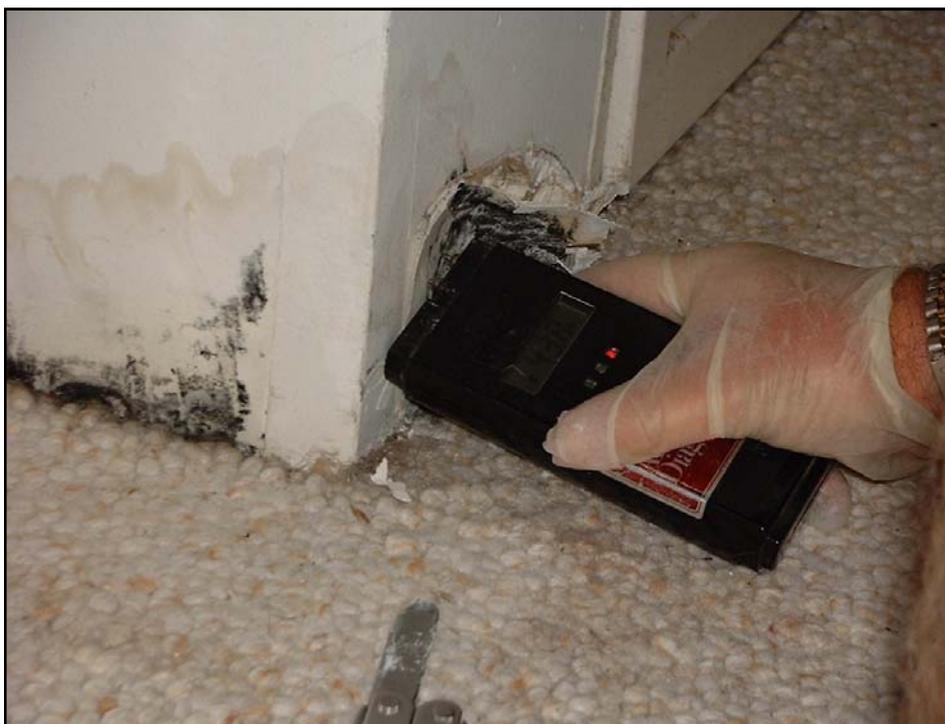


## **CONDITIONS for MOLD GROWTH**

- **WIDE TEMPERATURE TOLERANCE**
- **DIFFERENT SPECIES REQUIRE DIFFERENT FOODS**
  - **CAN EAT ANY CARBON BASED MATERIAL (ORGANIC MATTER)**
  - **LIKE CELLULOSE/PAPER/WOOD FIBER**
- **MOISTURE**
  - **THE ONE FACTOR WE CAN CONTROL**

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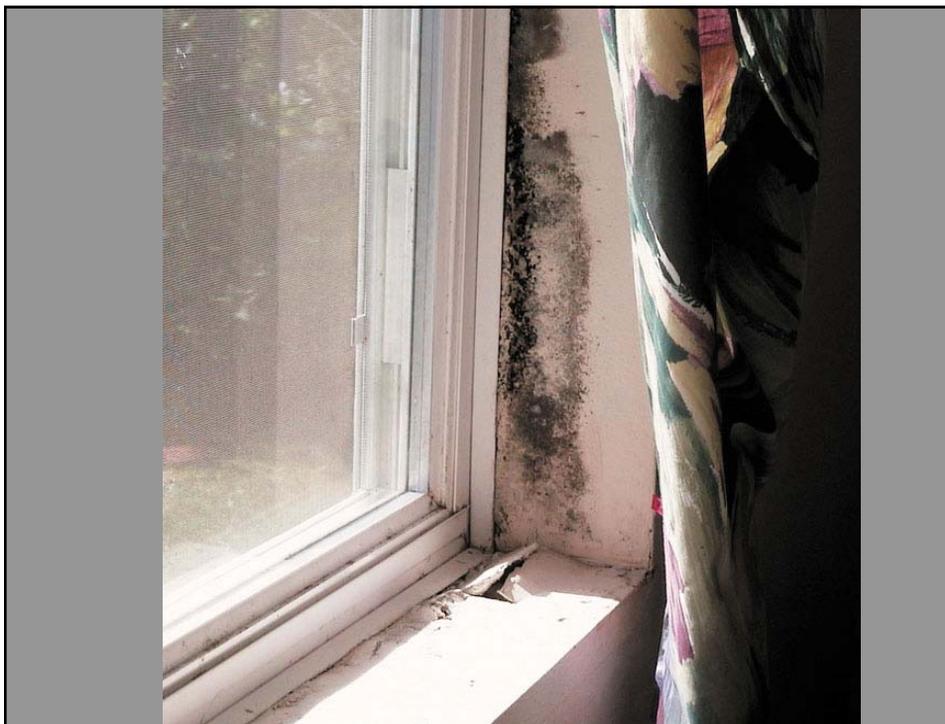


## **MOISTURE SOURCES for MOLD GROWTH**

- **IMPROPER ROOF DETAILS**
- **IMPROPER DOOR & WINDOW DETAILS**
- **INADEQUATE SUBSLAB MOISTURE PROTECTION**
- **INADEQUATE CONSIDERATION OF TEMPERATURE AND HUMIDITY**

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## **MOISTURE SOURCES for MOLD GROWTH**

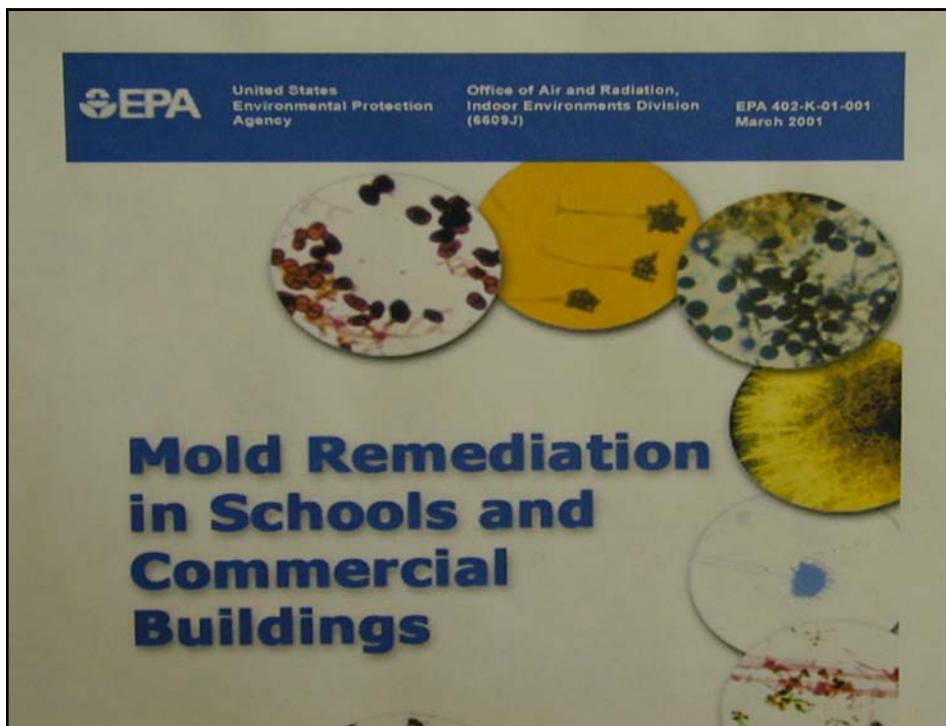
- **CATASTROPHIC EVENTS**
  - **FLOODS, HURRICANES, or FIRES**
- **LEAKS**
  - **ROOFS**
  - **WINDOWS AND DOORS**
  - **EFS/EIFS FAILURES**
- **CONDENSATION**
  - **AIR CONDITIONING CHILLED WATER PIPES**
  - **FAILURE TO CONSIDER TEMP/HUMIDITY**





## **REDUCING MOLD IN BUILDINGS**

- **KEEP THE INTERIOR DRY**
- **CONTROL HUMIDITY**
- **PROVIDE FOR AIR MOVEMENT**



## USEFUL RESOURCES FOR BUILDING MOLD

- [www.epa.gov/iaq/molds](http://www.epa.gov/iaq/molds)
- [www.cal-iaq.org/mold](http://www.cal-iaq.org/mold)
- [www.cal-iaq.org/iaqsheetsheet.htm #mold](http://www.cal-iaq.org/iaqsheetsheet.htm#mold)
- [www.doh.wa.gov/ehp/oehas/mold.html](http://www.doh.wa.gov/ehp/oehas/mold.html)
- [www.ci.nyc.ny.us/html/doh/html/epi/moldrpt1.html](http://www.ci.nyc.ny.us/html/doh/html/epi/moldrpt1.html)

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