

The Simple, Practical  
Solution to Eliminate

**MOLD**

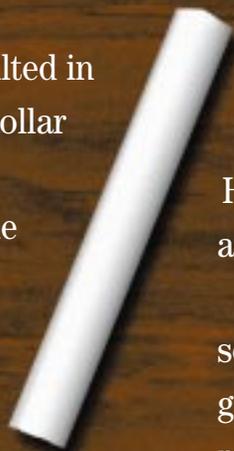
in Schools.



**Therma-Stor Products**

Indoor mold problems have resulted in school closings and multi-million dollar renovations. School districts and administrators have to deal with the mold panic fueled by these closings and the media coverage.

Mold contamination in schools is a serious problem that will affect sensitive teachers and children.



Preventing mold problems does not require completely redesigned HVAC systems costing tremendous amounts to install and operate.

There are affordable, practical solutions that will eliminate mold growth in schools and avoid the costly mold remediation and mitigation measures necessary after widespread contamination has occurred.

# What You Need To Know About MOLD

## *Mold Spores Are Everywhere.*

They are in the air, on your clothes, inside the walls and on the floor. You cannot eliminate the presence of mold spores.

## *Mold Spores Only Need Food and Water to Grow.*

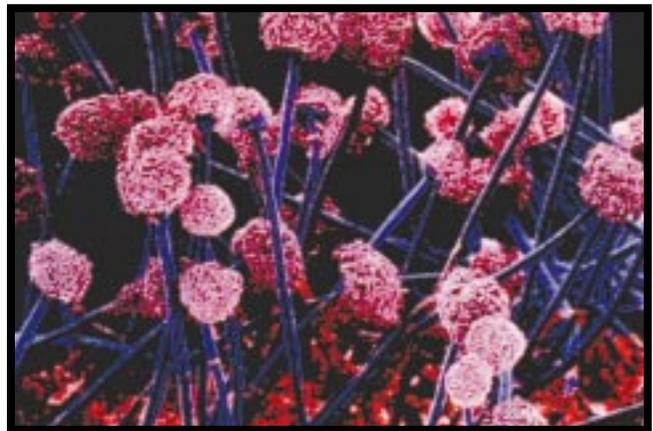
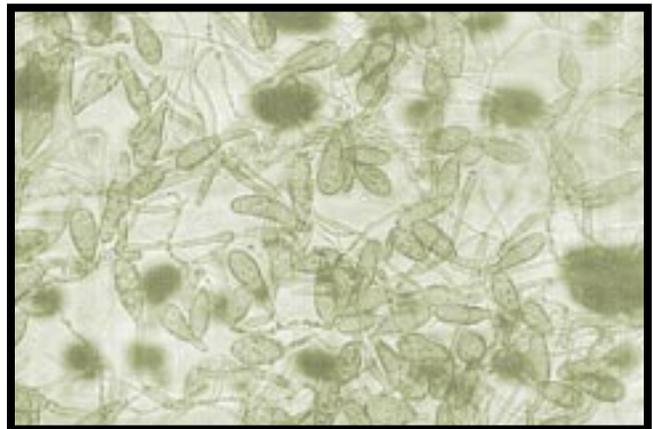
Molds feed on organic materials. The drywall paper, books, wallpaper and paste, wood, paper, some paints and dirt are all a food source for mold. You cannot eliminate the food source for mold.

Molds do not require liquid water to grow. They only require humidity levels from 65 to 99 percent at the surface on which they grow. If you control the humidity, you can eliminate mold growth.

Building defects like roof leaks or ruptured pipes are commonly assumed to be the moisture source if mold problems are encountered in a school. The truth is that fresh air ventilation is the largest moisture source in a school. The volume of water brought into a building through ventilation is sufficient to sustain mold growth. This humidity also prevents the occasional wetting from roof leaks or other defects to properly dry. This leads to the mistaken belief that simply fixing the defects will fix the mold problem.

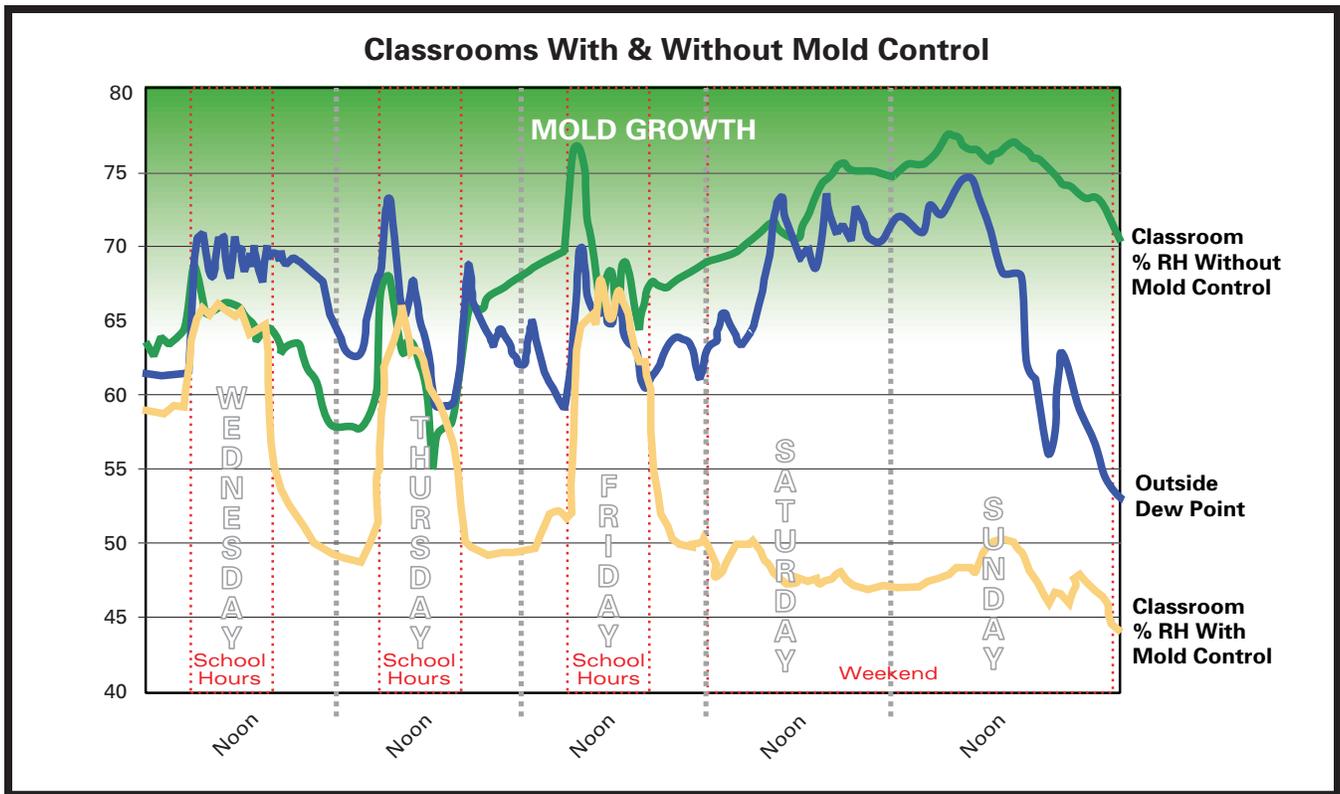
## *If the Grass is Green, You Can Have Indoor Mold Growth.*

A common misconception is that indoor mold growth is only a problem in the South. The truth is the high humidity conditions that exist many months of the year in the South are common in northern climates during the summer months. If the school is closed or only used occasionally, the high humidity outside will still come inside. Wet always moves toward dry. If the grass outside is green, the potential exists for indoor mold problems. The longer it is green, the larger the potential.



**Therma-Stor Products** manufactures dehumidification equipment for the commercial, industrial and residential sectors. Dehumidifier designs include models for free-standing and ducted applications.

**Therma-Stor Products** has equipment placed in schools, libraries and museums. Referrals available upon request.



Based on 70 degree outside dew point and 30 occupants. The data presented in this chart is based on information gathered from a school. **Therma-Stor Products** will often provide data loggers to evaluate the classroom conditions in your school. If you are interested in more information, call:

**1-800-533-7533**

## *Ventilation — You Can't Live With It, You Can't Live Without It*

Ventilation is the largest moisture source in schools. At the ASHRAE (American Society of Heating, Refrigeration and Air Conditioning Engineers) recommended ventilation rate of 15 cfm per person, nearly 2 gallons\* of water per hour will be brought into a classroom maintained at 75°F and 50% relative humidity. Multiply that by the number of classrooms and you can easily reach 100 gallons per day. The cost of an HVAC system designed to handle this volume of moisture is tremendous and the operating expense is astronomical.

The chart above illustrates the impact of ventilation on typical classrooms. Two classrooms are represented. Both classrooms are air conditioned and ventilated during school hours. The relative humidity in both classrooms rises dramatically throughout this period.

After school hours and during the weekend, the relative humidity in the classroom without mold control remains in the range where mold growth can be expected. A week of vacation, or a few days of rain will amplify the mold growth. Any events that add humidity to this precarious condition will intensify and expand the mold problem.

The classroom with mold control contains a single Santa Fe Rx dehumidifier. Overnight and on weekends, this unit dries the classroom and keeps the relative humidity in the range that prevents the growth of mold. During school holidays and vacations the threat of mold growth is eliminated and occasional dampening from building defects, pipe leaks, or cleaning can be dried. It is easy to see that instead of investing in an elaborate, energy hungry HVAC system designed to try to control the humidity during the school day. It is far more sensible to control the humidity after school hours with an energy efficient unit that costs only about a dollar a day to operate.

## Santa Fe Rx

The attractive design and quiet operation makes the **Santa Fe Rx** ideal for classrooms, libraries, offices and lounges. The **Santa Fe Rx** removes over 90 lbs. of water per day at A.H.A.M. conditions, and has an internal condensate pump and 20 feet of hose avoid emptying buckets or pans. An optional HEPA or activated carbon filter attachments are available.



## HI-E Dry

**HI-E Dry** dehumidifiers are designed for free-standing or ducted installations. **HI-E Dry** dehumidifiers are



perfect for the heavier moisture loads common in athletic facilities. Pools, spas, locker rooms and exercise areas

demand higher capacity equipment to eliminate mold, mildew and their odors. **HI-E Dry** dehumidifiers can also be found protecting museums, historical homes and archives.

## Ultra-Aire APD

Designed for ducted installation in drop ceilings or utility areas, the **Ultra-Aire APD** models offer fresh air ventilation and air filtration options in addition to aggressive humidity control. Available in a horizontal (140 lbs/day) or vertical (105 lbs/day) model, a single **Ultra-Aire APD** can be installed to provide humidity control for up to four classrooms.



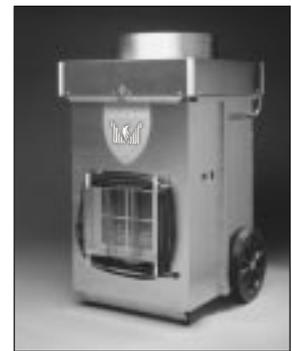
## Phoenix

When unexpected water damage threatens structures and their contents, **Phoenix** dehumidifiers provide maximum

drying power. Phoenix dehumidifiers are the choice of the restoration industry for high capacity drying power.



When high levels of allergens or odor complaints strike, the **Phoenix Guardian HEPA Air System** eliminates airborne particles, mold spores and bacteria. The optional activated carbon and potassium permanganate blend filter removes a wide variety of odors and gases.



*Call or write for more information about eliminating mold in schools.*



## Therma-Stor Products

1919 S. Stoughton Rd. • P.O. Box 8050 • Madison, WI 53708 • 1-800-533-7533