



**Mold prevention
makes sense...**

MOLD-RAM



MOLD-RAM™ makes it easy.

The trusted chemistry found in MOLD-RAM delivers long-term surface mold and mildew prevention. Use it with confidence on wood, wallboard, concrete and masonry (cinder) block construction materials to inhibit growth of mold organisms.

Mold prevention with EPA-registered MOLD-RAM entails a basic surface treatment. It can be applied during construction or to appropriate areas of existing structures. This highly effective surface mold and mildew prevention product is also suitable for use in conjunction with mold remediation programs.

MOLD-RAM contains the active ingredient chlorothalonil, an odorless substance with very low volatility. It is one of the world's most respected contact fungicides and MOLD-RAM is the only chlorothalonil product registered for use on such a broad range of building materials in homes under construction. In lab and field trials, chlorothalonil demonstrates remarkable persistence and efficacy against mold fungi. In leaching tests, it provides superior adhesion and wash-off resistance.

Applied according to label instructions, MOLD-RAM interrupts the metabolic activity of the fungal pathogens commonly associated with building materials. It offers tank-mix flexibility with borate products, which are used for termite control and fungal decay.



MOLD-RAM is sold in convenient 1-quart tip-and-measure containers.

For prevention only.

MOLD-RAM is a preventive product. It forms the foundation for a comprehensive mold management program that must also include conscientious moisture and humidity control. It delivers excellent long-term prevention, but does not remove existing mold.

When used as part of a mold remediation program, MOLD-RAM plays no role in eliminating mold during the cleanup process, but is the product of choice for preventing new growth. MOLD-RAM should be applied only after all mold has been professionally removed and conditions favorable to new growth identified and corrected.

A comprehensive mold remediation program would involve removing existing mold (with other approved products and/or services) and eliminating conditions such as moisture

ingress and high humidity, which can cause mold to grow out of control. Remediators must correct these issues and dry affected areas to a moisture content of 20% or less. Periodic monitoring and inspection of buildings for conditions conducive to mold development are important.

As versatile as it is effective, MOLD-RAM is easily applied by licensed pest control professionals or certified mold specialists using a sprayer or paintbrush. If desired, a spray pattern indicator or permanent dye can be added to the MOLD-RAM solution. (Permanent dyes should only be used on areas not negatively affected by permanent marking.) Surfaces should be thoroughly moistened with MOLD-RAM (without runoff or pooling) and allowed to dry completely before painting or applying siding, wallboard or flooring. Mold remediators must make sure all surfaces to be treated with MOLD-RAM are free of existing mold or mildew.





Timing is right for mold management.

Mold management has become big business in recent years due to publicity, building practices, lifestyle patterns and possible links between indoor air quality and health. Statistics indicate a majority of the population spends 90% of their lifetime indoors. Consequently, more and more people are taking precautions against mold. Many builders now include surface mold and mildew prevention at time of construction, and owners of existing homes are contracting to have susceptible areas treated and protected – just as they would for termites and other pests. Think of it this way. The number one job of MOLD-RAM is to prevent surface mold and mildew. But in reality, it does so much more. It protects the investment your customers have in their homes and gives them peace of mind.



Where to use.

- ▶ All wood surfaces
- ▶ Wall and partition bottom plates in contact with concrete
- ▶ Masonry surfaces such as basement and foundation walls
- ▶ Surfaces of wall sheathing
- ▶ Open or closed crawl spaces
- ▶ Non air-conditioned areas such as garages and attics

Factors contributing to mold issues.



Building Practices

- ▶ Exposure of building materials to rain, moisture or humidity during construction
- ▶ Buildings that don't "breathe" due to lack of adequate ventilation and new construction technologies
- ▶ Leaky water pipes and roofs

Lifestyle Changes

- ▶ Estimated more than 90% of lifetime spent indoors
- ▶ Extensive use of air conditioning

Environmental Factors

- ▶ Floods, hurricanes
- ▶ Wet winters in northern U.S. and Canada
- ▶ Humid summers in South and Southeast



Mold Species Found in Homes

- ▶ *Alternaria* spp.
- ▶ *Aspergillus* spp.
- ▶ *Aureobasidium* spp.
- ▶ *Cladosporium* spp.
- ▶ *Penicillium* spp.
- ▶ *Stachybotrys* spp.
- ▶ *Trichoderma* spp.

Image copyright Dennis Kunkel Microscopy, Inc.

MOLD-RAM guidelines.

- ▶ use to inhibit or prevent growth of surface mold and mildew organisms when building materials such as wood, wallboard, concrete and masonry (cinder block are subject to moist, wet or humid environments
- ▶ remove any visible mold growth and correct conditions conducive to mold development before application
- ▶ mix with water at a rate of 2.5 ounces per gallon to cover approximately 500 sq. ft. of building material surface (1 quart per 12.5 gallons covers approximately 6,250 sq. ft.)
- ▶ apply alone or tank mix with borate products to broaden control
- ▶ apply evenly with sprayer or paintbrush (add spray pattern indicator or permanent dye, if desired)
- ▶ wet surfaces evenly, without runoff or pooling, and allow to thoroughly dry before applying overlayment materials such as paint, wallpaper, siding, wallboard or flooring
- ▶ following proper mold removal, use for mold prevention in a comprehensive remediation or water damage restoration program
- ▶ cover treated interior living space surfaces (wallboard) with paint, wallpaper or other material once treatment is complete and thoroughly dry
- ▶ **always** wear personal protective equipment (PPE) and carefully adhere to all application requirements described on label
- ▶ **never** use on food-contact surfaces or on building interiors where food processing, preparation or handling takes place

Proven prevention.

Sponsored Research at an Independent Laboratory

MOLD-RAM provided consistent broad-spectrum preventive control when used alone or in combination with a borate product on pine, while a competitive product showed poor or inconsistent control.

Fungicide Treatments

1 – Control

2 & 3 – MOLD-RAM

4 & 5 – DDAC*

6 & 7 – Bora-Care®

8 & 9 – Cellu-Treat®

10 & 11 – Bora-Care and DDAC

12 & 13 – Bora-Care and MOLD-RAM

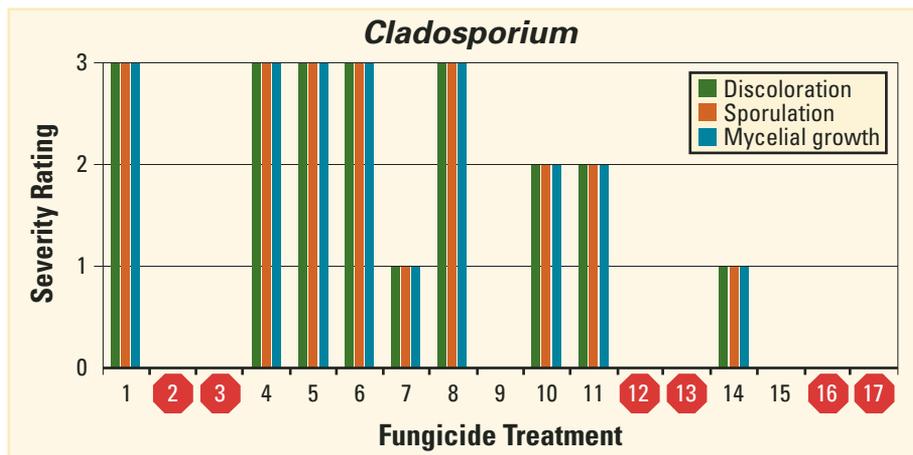
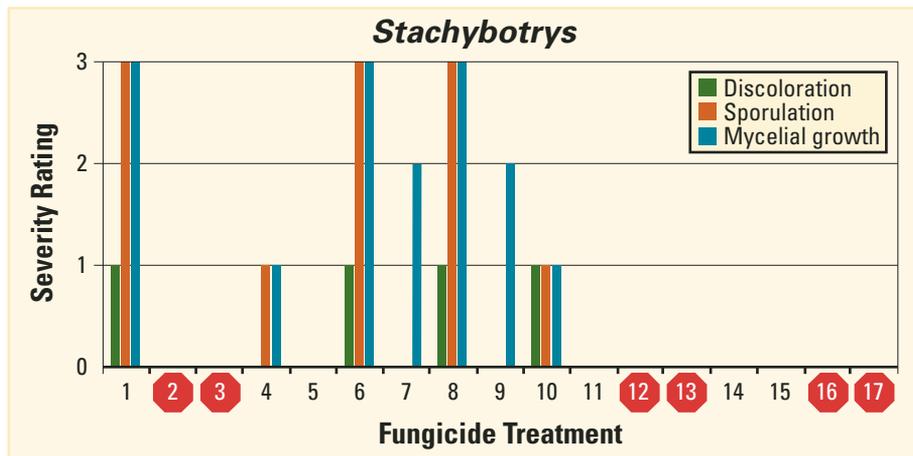
14 & 15 – Cellu-Treat and DDAC

16 & 17 – Cellu-Treat and MOLD-RAM

All products applied at labeled rates.

*didecyl dimethyl ammonium chloride

(a common competitive quaternary ammonium compound)



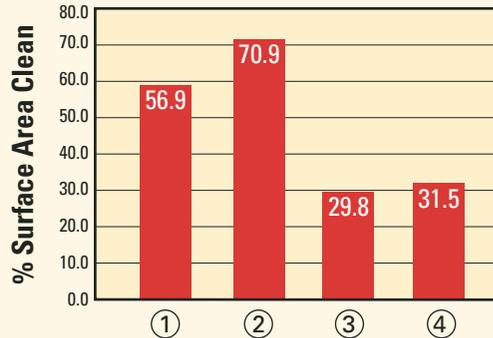
South Florida Test Service, Miami, FL.

January 2005: Treated four groups of lumber bundles as indicated.

No.	Treatment/Concentration
①	MOLD-RAM <i>Concentration v/v - 1.96%</i>
②	MOLD-RAM + Bora-Care <i>Concentration v/v - 2.04% + 16.33%</i>
③	DDAC + Bora-Care <i>Concentration v/v - 2.04% + 16.33%</i>
④	Control (water)

In January 2005, lumber bundles were treated as indicated in the chart above. Following treatment, the bundles were transported to South Florida Test Service in Miami, FL, and tarped to reduce drying and induce mold growth. During the test period, the lumber was untarped and watered or subjected to rainfall four times: February 15, February 28, March 3 and March 28, 2005. Tarps were replaced after each watering/rain.

April 2005: Lumber bundles evaluated. Numbers in red bars indicate percent of clean surface area on worst broad face.

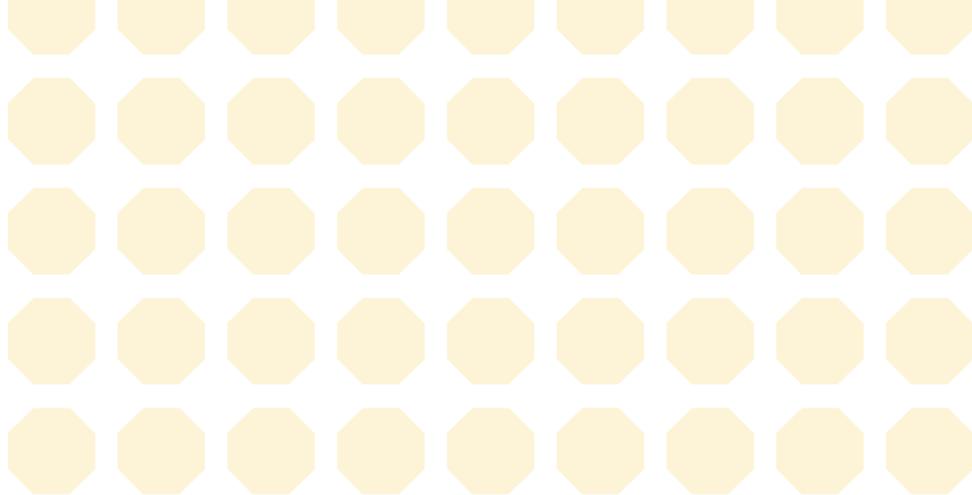


On April 5, 2005, approximately three months after treatment, Dr. Terry Amburgey of TASKpro, Inc., a forest products consulting firm inspected each piece of lumber in every bundle. After examining the two broad surfaces of each board, Dr. Amburgey estimated the percentage of clean surface area on the worst face. Only the percentage of growth was rated, not the severity. The most effective treatment was the MOLD-RAM/Bora-Care combination. See chart.



"When I examined the boards in this study, I had no previous knowledge of the treatments that had been applied to the lumber packets or the number of replicates per treatment. After the results were tabulated, I was told that the treatment I had rated as most effective was the MOLD-RAM/Bora-Care combination. The next most effective treatment was MOLD-RAM alone!"

*Dr. Terry Amburgey
TASKpro, Inc.*



MOLD-RAM™ is a trademark of Sostram Corporation. Bora-Care® and Cellu-Treat® are registered trademarks of Nisus Corporation. Always read and follow label instructions before applying any pesticide product.

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