



MOLD ASSESSMENT

6210 Leonardo St
Coral Gables FL 33146

Christopher Marotta
SEPTEMBER 10, 2018



Inspector
Luis Perez

Luis Perez

HI7112/MRSA2947/CRC1330244
305-908-3835
luis@truviewinspections.com

Table of Contents

Table of Contents	2
1: INSPECTION DETAILS	3
2: WHAT WE FOUND	4
3: RECOMMENDATIONS	6
4: TESTING	7
5: ADDITIONAL INFORMATION	11

1: INSPECTION DETAILS

Information

Type of Building

Single Family

Temperature

98 Degrees Fahrenheit

Weather Conditions

Hot

Property Photos



2: WHAT WE FOUND

Information

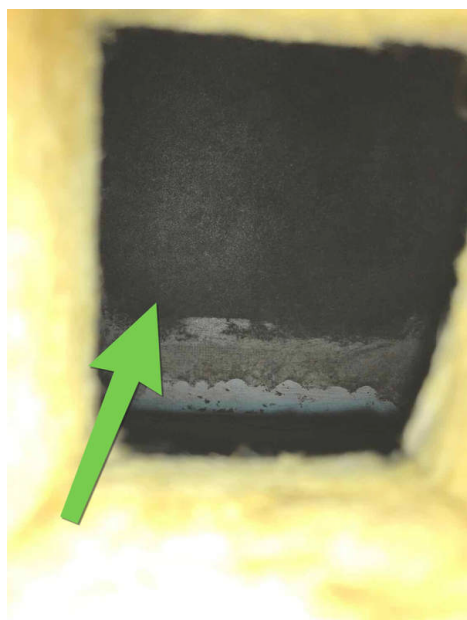
General: Areas of Concern

Visible Mold Growth, Water Damage, Elevated Airborne Mold Spores, Moisture

If mold is visible, that tells us that the conditions for the growth of mold are in that area. Mold growth is like any science experiment. If the conditions remain the same, the results of the experiment will be the same. Failure to resolve the underlying conditions that allowed the growth of mold will result in future growth of mold.

Any and all leaks need repaired to avoid mold in this area. Mold can live in hidden areas below leaks. As a result, exploration and remediation of hidden areas may be required to identify and correct all mold contamination areas. Any and all leaks and water events can result in mold growth if not corrected.

General: Areas of Concern Photos



Mold Growth Inside Ducts



Cold Air Leak



Mold Growth



Mold Growth



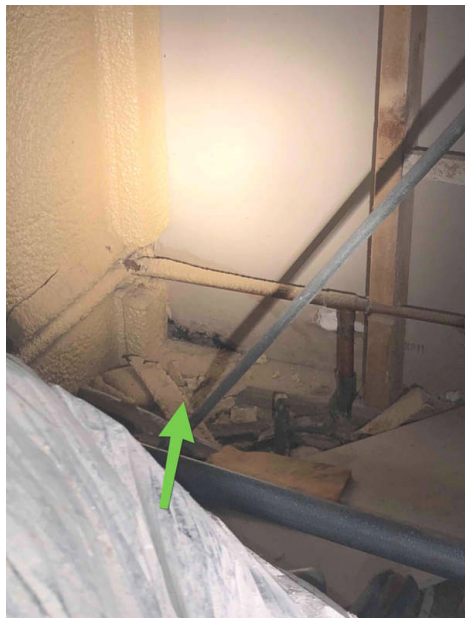
Mold Growth



Mold Growth



Mold Growth



Mold Growth



Mold Growth AC Coils



Condensation Leak



Mold Growth

3: RECOMMENDATIONS

		Yes	No
3.1	Plumbing Pipe To Be Fixed By Plumber		X
3.2	Leak To Be Fixed By Contractor		X
3.3	Air Scrubber Installed Immediately	X	
3.4	Containment Installed Immediately	X	
3.5	Hydroxyl Machine To Be Installed		X
3.6	Bathroom Air Vent To Be Covered	X	
3.7	Remove Water/Mold Damaged Drywall	X	
3.8	Remove Baseboards	X	
3.9	Remove Toilet	X	
3.10	Remove Entire Shower (Plumbing/Pan Leak)		X
3.11	Affected Furniture To Be Cleaned		X
3.12	Affected Furniture To Be Replaced		X
3.13	Remove Bathroom Vanity	X	
3.14	Affected Clothing To Be Cleaned		X
3.15	Affected Clothing To Be Replaced		X
3.16	Micro Clean Affected Areas	X	
3.17	HEPA Vacuum	X	
3.18	Fog Area With Microbial Agent	X	
3.19	Remove All Materials Affected By Water/Mold	X	
3.20	Abate Moisture Source	X	
3.21	HVAC System Needs Cleaning	X	
3.22	HVAC Ducts Need Cleaning	X	
3.23	Supply Plenum To Be Sealed	X	

Yes = Present No = Not Present

4: TESTING

Information

Testing & Other Recommendations

A visual inspection is conducted to ascertain any visible signs of fungal growth or water intrusion.

Air samples for airborne countable fungal agents are performed using Air-O-Cell Spore Trap Cassettes. Samples are taken indoors and outdoors to compare the genus and numbers of airborne spores.

Potentially contaminated surface samples are performed using a Tape or Swab and analyzed via direct microscopy. Potentially contaminated interstitial wall spaces are performed using a wall cavity check adapter and connected to a Spore Trap Cassette.

There are currently no government regulations or health standards denying the allowable number of airborne fungal spores in buildings. However, there are several accepted protocols and studies that are currently used as industry standards:

New York City Department of Health Guidelines on Assessment and Remediation of Fungi in Indoor Environments.

The American Conference of Government Industrial Hygienists (ACGIH).

ACGIH states that indoor spore levels are generally less than outdoor levels.

At high levels, most sensitive or immune-compromised individuals will experience symptoms. Acceptable levels for individual genus and species vary since their toxicity, spore size, weight and other features that affect the occupants vary.

Other Recommendations for Microbial Remediation Protocol:

The following areas must be remediated and/or taken into account:

Remove and discard all exposed insulation.

Enhanced cleaning of all interior surfaces throughout the specified areas/findings and adjoining spaces as necessary to remove settled spores using a HEPA filter equipped vacuum cleaner including but not limited to:

- Cabinets
- Shelves
- In and behind all drawers, appliances, and closets.

Wet wiping of surfaces should be performed on non-porous surfaces where applicable.

Engineering controls (i.e. Air Scrubbers equipped with HEPA filters) should be operated inside the building during all enhanced cleaning efforts and for a minimum of 48 hours following completion prior to retesting home.

Dehumidifiers must be used as necessary to keep the relative humidity below 60%.

Bedding, clothing, furniture and all porous surfaces should be cleaned or discarded as instructed by remediator.

Distribute and isolate all air filtration devices throughout the remediated areas. Ensure during the course of the project that no old, contaminated or incorrectly installed filters are used to minimize post remediation testing failures or potentially cross contaminating other areas of the residence.

Any affected materials that are not removed, due to structural concerns or materials adjacent to affected materials that have been removed should be sanded, scrubbed, and cleaned in detail with a detergent agent. If mold substances cannot be completely removed then they shall be encapsulated.

HVAC System to include blower wheel, coil, jacket and all components to remove all dust, debris and visible mold.

Clean surfaces of air handler unit including blower fan, evaporator coils and blower fan compartment with a detergent agent. Detail cleaning of the air handler unit and its closet after all remediation is complete is

recommended.

Any affected materials that are not removed, due to structural concerns or materials adjacent to affected materials that have been removed, shall be sanded, scrubbed, and cleaned in detail with a detergent agent. If mold substances cannot be completely removed then they shall be encapsulated.

Continued monitoring of areas for moisture issues is recommended.

All remediation should be performed by a Florida Licensed Mold Remediator. We recommend obtaining price proposals from licensed Mold Remediators prior to completion of the due diligence period to determine actual costs. The costs of remediation can vary greatly.

Protocol for the Containment:

PVC or wood supporting frames shall be utilized to ensure that the containments remain intact during the entire remediation and post-remediation procedures.

The containment must be built using polyethylene sheeting of 6-mil thickness that is clear or opaque and moisture resistant duct tape and spray on glue capable of continuously sealing polyethylene through projects remediation duration.

Ground Fault Circuit Interrupters (GFCI) to be used on all electrical equipment within the containment.

The designated onsite clean storage area must be outside.

Polyethylene bags of 6-mil thickness such as those used for asbestos-containing waste.

A wet-vacuum cleaner and HEPA-filtered vacuum cleaner. All areas should be cleaned and sanitized and new filters installed prior to beginning the project. All filters shall be disposed of as contaminated waste material at the end of this project.

Remove all contents from the affected areas that will be contained. All applicable contents must be HEPA vacuumed and damp wiped with a mild detergent solution prior to removal. In the event some contents cannot be removed e.g. large furnishings ensure they have been cleaned properly and are sealed with polyethylene sheeting of 6-mil thickness. Electronic equipment should be HEPA vacuumed only.

Once all the affected materials have been removed, HEPA vacuum to remove remaining dust and debris from the containment. Additionally, wipe down the interior of the containment to remove any particular matter that may statically bind to the walls of the containment.

Air Filtration devices with HEPA filtration and in a sufficient number to provide a negative pressure between the containment and outside areas shall be operated continuously from the time containment is established through the time all demolition is completed.

Tips for Containing Mold Growth:

Encourage active airflow throughout the building. Open windows.

Utilize bathroom and kitchen extractor fans/range hood. Make sure they vent to outside.

Ventilate clothes dryer exhaust to outside.

Do not dry clothes indoors.

Correct any condensation problems with proper ventilation.

Maintain an air gap between furniture and the walls.

Clean and dry windows often, especially single panes and aluminum frames.

Periodically check plumbing fixtures for signs of water leaks.

Maintain comfortable temperatures in all living quarters.

Insulate the home including water pipes.

Keep the relative humidity below 60%, running a dehumidifier if necessary.

Maintain caulking and grouting in kitchens and bathrooms.

Keep houseplants to a minimum. Do not use a live Christmas tree.

Do not store rewood indoors.

Frequently clean / change the heating / cooling filter.

Use a vacuum cleaner that incorporates a Hepa-Filter frequently.

Keep a log of health problems date, time, and room associated. Look for patterns.

Post Remediation:

Additional samples should be taken 3 to 6 months following reconstruction to check the indoor air quality.

Contractor Qualifications:

Mold remediation must be performed by a qualified company that is a State Licensed MRSR with experience and training in microbial remediation. The company's employees must also be deemed free of any immunological diseases, have a proper t-tested respirator and meet other state requirements.

All remediation must be performed in accordance with the New York City Department of Health's Guidelines on Assessment and Remediation of Fungi in Indoor Environments, IICRC's S520 Standard & Reference Guide for Professional Mold Remediation and the National Air Duct Cleaners Association's (NADCA) standards.

Disclosure:

It is beyond the scope of our assessment to determine the sources of any past or current water intrusions. The results of our observations represent conditions only at the time of inspection. Thus, this report should not be relied on to represent conditions at other locations, times or dates.

Limitations:

Our opinions are based on the findings and upon our professional expertise with no warranty or guarantee implied herein. This report is intended for the sole use of the client. Truview Mold, LLC accepts no responsibility for interpretation of this report by others. Its contents shall not be used or relied upon by other parties without prior written authorization of Truview Mold, LLC.

It is agreed that Truview Mold will be compensated for any and all time and preparation in relationship to any and all third party litigation and or insurance settlement at the rate of \$425.00 per hour.

Testing Information:

Selected interior walls and ceilings described were checked for moisture using a GE Protimeter Survey Master Digital Moisture Meter calibrated to 18%.

WME- Wood Moisture Equivalent. In wood, the Survey Master measures the material's actual percent moisture content (Percent H₂O). When testing material other than wood, the meter measures the wood moisture equivalent (WME) value of the material.

WME is the moisture level that would be attained by a piece of wood in equilibrium with the material being tested. As the critical moisture levels for wood are known, WME measurements enable the moisture meter user to establish if materials are in a safe, dry, borderline or damp condition.

Less than 12% - The material is in a safe, dry condition, moisture related problems of decay/deterioration will not occur.

12% to 20% - The material is in a borderline condition, decay/deterioration may occur under certain conditions.

Over 20% - The material is in a wet condition, decay/deterioration is inevitable in time unless the moisture level of material is reduced.

Minimum 6 mil plastic sealed air tight from wall to wall and ceiling to door isolating the remediated areas from the occupied spaces. Air scrubbers must be operating.

Air Scrubbers should be properly inspected (i.e. no by-pass, clean filters) prior to operation in building.

Clearance Testing/Post Testing:

Clearance testing should be performed after any type of mold removal or remediation to verify that the remediation was successful in reducing indoor microbial levels of equal to or below ambient outdoors. Testing is to be done after the cleanup phase of the remediation is completed, but prior to any walls being closed or components such as cabinets/flooring being reinstalled.

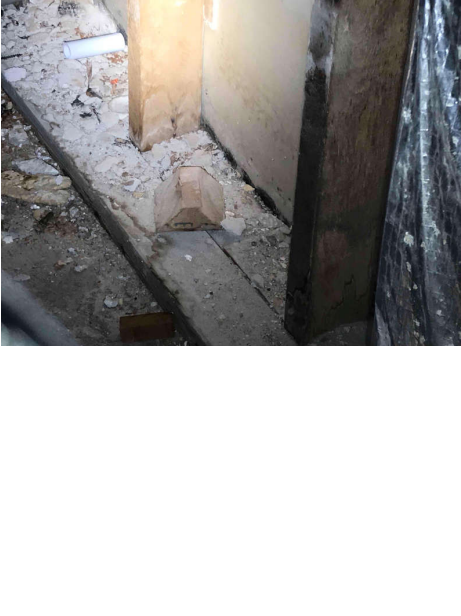
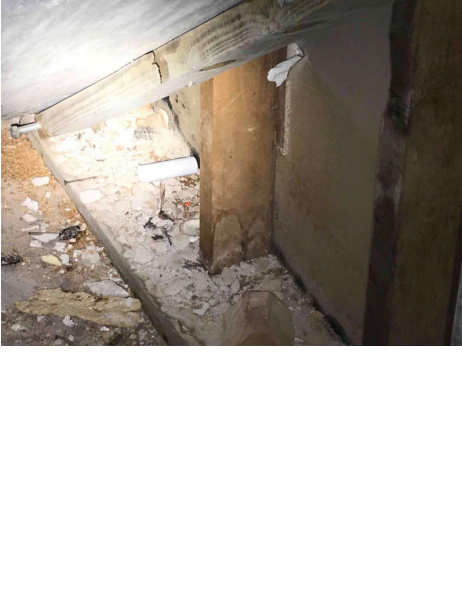
*This includes testing inside and outside the containment areas.

5: ADDITIONAL INFORMATION

Information

Photos









PREPARED FOR: TRUVIEW INSPECTIONS

TEST ADDRESS: 6210 LEONARDO ST CORAL GABLES, FL 33146

CERTIFICATE OF MOLD ANALYSIS

PREPARED FOR:

TRUVIEW INSPECTIONS

PHONE NUMBER: (305) 908-3835

EMAIL: INFO@TRUVIEWINSPECTIONS.COM

TEST LOCATION:

CHRISTOPHER MAROTTA

6210 LEONARDO ST

CORAL GABLES, FL 33146

CHAIN OF CUSTODY # 52216462

COLLECTED: MON SEPTEMBER 10, 2018

RECEIVED: WED SEPTEMBER 12, 2018

REPORTED: WED SEPTEMBER 12, 2018



APPROVED BY: JOHN D. SHANE PH.D.,
LABORATORY MANAGER

VERSION: 1.0 (A VERSION NUMBER GREATER THAN ONE (1) INDICATES THAT THE DATA IN THIS REPORT HAS BEEN AMENDED)

EPA regulations or standards for airborne or surface mold concentrations have not been established. There are also no EPA regulations or standards for evaluating health effects due to mold exposure. Information about mold can be found at www.epa.gov/mold.

All samples were received in an acceptable condition for analysis unless noted specifically in the Comments section under a particular sample. All results relate only to the samples submitted for analysis.

A version greater than 1.0 indicates that the lab report has been revised.

FOR MORE INFORMATION, PLEASE CONTACT INSPECTORLAB AT (888) 854-0477 OR EMAIL ASK@INSPECTORLAB.COM

PREPARED FOR: TRUVIEW INSPECTIONS

TEST ADDRESS: 6210 LEONARDO ST CORAL GABLES, FL 33146

Detailed Mold Report

(WATER-INDICATING FUNGI ARE SHOWN BELOW IN RED)

Analysis Method	Air Analysis	Surface Analysis	Air Analysis	Surface Analysis
Lab Sample #	52216462-1	52216462-2	52216462-3	52216462-4
Sample Identification	26826713	SWAB 1	26826717	SWAB 2
Sample Location	LIVING ROOM	INTERIOR WALL	OUTSIDE	AIR VENT
Sample Type / Metric	Air-O-Cell/150.0L	Swab	Air-O-Cell/150.0L	Swab
Analysis Date	Wed September 12, 2018	Wed September 12, 2018	Wed September 12, 2018	Wed September 12, 2018
Determination	NORMAL	GROWTH	CONTROL	GROWTH

Fungal Types Identified	Raw Count	Spores / m ³	% of Total		Mold Present		Raw Count	Spores / m ³	% of Total		Mold Present	
*INDOOR PROBLEM FUNGI												
Cladosporium	---	---	---		---		---	---	---		X	
Hyphae	---	---	---		X		---	---	---		X	
Penicillium/Aspergillus	---	---	---		X		---	---	---		---	
Stachybotrys	---	---	---		X		---	---	---		---	
**Non-Problem Fungi												
Ascospores	---	---	---		---		9	60	2		---	
Basidiospores	---	---	---		---		43	288	10		---	
Cladosporium	---	---	---		---		12	80	2		*	
Ganoderma	7	47	29		---		348	2,332	84		---	
Penicillium/Aspergillus	15	101	62		*		---	---	---		---	
Stachybotrys	2	13	8		*		---	---	---		---	
Total Spore Count	24	161	100		X		412	2,760	100		X	
Minimum Detection Limit	7			N/A			7			N/A		
Comments/Definitions	Mold counts are within a NORMAL RANGE and there is no indication, based on the mold counts, that there is any exposure concern to the occupants. The LIGHT DEBRIS present in the sample likely had no effect on the accuracy of the mold count.			Presence of current or former MOLD GROWTH observed. EXPOSURE TO SPORES LIKELY and will continue if the growth is not removed. An active or intermittent water source will cause the mold to continue to grow if the water source is not eliminated.			CONTROL samples are normally taken outside a building to provide a baseline from which samples on the interior of the building are compared. Outside air is considered normal whatever the mold counts may be. The LIGHT DEBRIS present in the sample likely had no effect on the accuracy of the mold count.			Presence of current or former MOLD GROWTH observed. EXPOSURE TO SPORES LIKELY and will continue if the growth is not removed. An active or intermittent water source will cause the mold to continue to grow if the water source is not eliminated.		
Raw Count:	Actual number of spores observed and counted.											
Spores/m ³ :	Spores per cubic meter.											
% of Total:	Percentage of a particular spore in relation to total number of spores.											
X:	Spore type was observed.											
---	Spore type was not observed.											

* Indoor Problem Fungi are generally capable of growing on wetted building materials.

** Non-Problem Fungi are less capable or do not grow on wetted building materials. They are commonly found in the air outside and infiltrate into indoor air naturally. High numbers of any one of these spore types as compared to the Control sample may indicate that they are growing on wetted building materials indoors.

Spore types not listed in this report were not observed.

Background debris estimates the amount of non-spore particles. Increasing amount of debris will affect the accuracy of the spore counts. Total percent may not equal 100% due to rounding.

PREPARED FOR: TRUVIEW INSPECTIONS

TEST ADDRESS: 6210 LEONARDO ST CORAL GABLES, FL 33146

Introduction

All spores found in indoor air are also normally found in outdoor air because most originate or live in the soil and on dead or decaying plants. Therefore, it is not unusual to find mold spores in indoor air. This Mold Glossary is only intended to provide general information about the mold found in the samples that were provided to the laboratory.

Ascospores

Outdoor Habitat: Soil and decaying vegetation, dead and dying insects. These spores constitute a large part of the spores in the air and can be found in the air in very large numbers in the spring and summer, especially during and up to three (3) days after a rain.

Indoor Habitat: Very few of fungi that produce ascospores grow indoors. Some fungi that produce ascospores are recognizable by their spores and when observed are listed under their own categories. Wetted wood and gypsum wallboard paper

Allergy Potential: Depends on the type of fungus producing the ascospores.

Disease Potential: Not normally pathogenic as a group

Toxin Potential: None known

Comments: Ascospores are produced from a very large group of fungi. Notable ascospores that are considered problematic for indoor environments are Chaetomium, Peziza, and Ascotricha. If these types of ascspores are observed they will be listed in the report under their own names.

Basidiospores

Outdoor Habitat: These are mushroom spores and are common everywhere outside, especially in the late summer and fall.

Indoor Habitat: Mushrooms can grow on very wet wood products, especially on footer plates, basements, and crawlspaces. Sometimes mushrooms can be observed growing in potted plants indoors.

Allergy Potential: Rarely reported, but some Type I (hay fever, asthma) and Type III (hypersensitivity pneumonitis) has been reported.

Disease Potential: None known

Toxin Potential: None known

Comments: Mushroom spores are commonly found indoors, especially when the outdoor spore count is high. When spores of this group are derived from wood rotting fungi, including dry rot (Serpula and Poria), they can be especially destructive to buildings. When spores from destructive types of mushrooms (dry and wet rot group) are observed in the sample they are listed under their own names on the report.

PREPARED FOR: TRUVIEW INSPECTIONS

TEST ADDRESS: 6210 LEONARDO ST CORAL GABLES, FL 33146

Cladosporium

Outdoor Habitat: Cladosporium is one of the most common environmental fungi observed worldwide and is widely reported from soil and decaying vegetation.

Cladosporium herbarum and C. cladosporioides are among the most frequently encountered species, both in outdoor and indoor environments.

Indoor Habitat: Wetted wood and gypsum wallboard paper, paper products, textiles, rubber, window sills. Cladosporium has the ability to grow at low temperatures and can thus, grow on rubber gaskets and food in refrigerators.

Allergy Potential: Type I (hay fever, asthma) - an important and common outdoor allergen

Disease Potential: Opportunistic pathogen in immunocompromised persons, not normally a pathogen in healthy individuals. Cladosporium are some of the most common species reported as indoor contaminants, occasionally linked to health problems.

Toxin Potential: Cladosporium has two known toxins (cladosporin and emodin). These toxins are not known to be highly toxic. There is no evidence in the literature of toxic effects associated to inhalation of Cladosporium conidia (spores) indoors.

Comments: The most commonly reported spore in the outdoor air worldwide. This makes Cladosporium one of the most commonly reported and abundant spore types both indoors and outdoors. The prevalence of this spore can vary throughout the year, but is especially high in late summer and autumn, especially where cereal crops are commonly planted.

An important and common allergen source.

Ganoderma

Outdoor Habitat: Growing as a parasite on other plants and fungi, especially on trees, notably hardwoods

Indoor Habitat: Does not grow indoors

Allergy Potential: Type I (hay fever, asthma), rare

Disease Potential: None known

Toxin Potential: None known

Comments: Extensively used as a Chinese herbal supplement

PREPARED FOR: TRUVIEW INSPECTIONS

TEST ADDRESS: 6210 LEONARDO ST CORAL GABLES, FL 33146

Hyphae**Outdoor Habitat:** Soil and decaying vegetation**Indoor Habitat:** Wetted wood and gypsum wallboard paper**Allergy Potential:** Known to be allergenic.**Disease Potential:** None known**Toxin Potential:** None known**Comments:** "Root-like" structures of fungal growth that can become airborne and may be allergenic.

When hyphae are found growing on a surface and associated with fruiting bodies and/or fungal spores, they indicate that growth has taken place and remedial action is suggested. Sometimes hyphae grow and do not produce spores. A hyphal mass is indicative of mold growth.

Penicillium/Aspergillus**Outdoor Habitat:** Soil and decaying vegetation, textiles, fruits. These spores are commonly observed and are a normal part of outside air.**Indoor Habitat:** Wetted wood and gypsum wallboard paper, textiles, leather, able to grow on many types of substrates.**Allergy Potential:** Type I (hay fever, asthma), Type III (hypersensitivity pneumonitis)**Disease Potential:** Opportunistic pathogen in immunocompromised persons, not normally a pathogen in healthy individuals.**Toxin Potential:** Several known**Comments:** Extremely common in indoor air in low amounts. This type of spore should not constitute an overwhelming percentage and be present in very high numbers.

These two genera are grouped together because they cannot be reliably differentiated into their respective genera based solely on spore morphology.

PREPARED FOR: TRUVIEW INSPECTIONS

TEST ADDRESS: 6210 LEONARDO ST CORAL GABLES, FL 33146

Stachybotrys**Outdoor Habitat:** Soil and decaying vegetation, especially straw**Indoor Habitat:** Wetted wood, gypsum wallboard paper, cardboard boxes and ceiling tiles. This type of mold needs significant water to grow and thrive**Allergy Potential:** Type I (hay fever, asthma)**Disease Potential:** None known**Toxin Potential:** Several known (including macrocyclic trichothecenes, satratoxin F, G, H)**Comments:** Spores can be dispersed into the air when old and dry, but are wet, slimy and heavy when actively growing and thus are not easily dispersed into the air. Significantly higher numbers of spores, as compared to outside background levels, of this genus are not normal for indoor environments and indicate a current or former water problem. It is not that unusual to find the occasional *Stachybotrys* spore in the air indoors. *Stachybotrys* has several mycotoxins and has been implicated as a causative agent in disease. HIGH CONCENTRATIONS AND LONG EXPOSURES TO STACHYBOTRYS SHOULD BE AVOIDED.



**STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION**

MOLD-RELATED SERVICES LICENSING PROGRAM
2601 BLAIR STONE ROAD
TALLAHASSEE FL 32399-0783

(850) 487-1395

Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxers to barbeque restaurants, and they keep Florida's economy strong.

Every day we work to improve the way we do business in order to serve you better. For information about our services, please log onto www.myfloridalicense.com. There you can find more information about our divisions and the regulations that impact you, subscribe to department newsletters and learn more about the Department's initiatives.

Our mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!

