Fiera Group – Gerald Asbroak

Combating Black Winery Mould

Opening comments and statements taken from Google

For over a decade, mould has remained in the news. People are talking about the effect on population health and damage to the building. But what are the risks and issues? The available science on moulds and their potential health effects remains under study, but considerable progress has been made. The US Centres for Disease Control and Prevention (CDC), the Institute of Medicine of the US National Academy of Sciences, the World Health Organization, and Health Canada all agree that living or working in a building with mould damage results in increased risk of respiratory disease. Although there are several guidance documents available, there are no accepted national or international standards for mould investigation, evaluation or remediation.

What is “black mould”? The news media and some contractors often refer to “black mould” or “toxic black mould.” It is usually associated with Stachybotrys chartarum, a type of greenish-black mould commonly associated with heavy water damage.

Not all moulds that appear to be black are Stachybotrys. The known health effects from exposure to Stachybotrys are similar to those caused by other common moulds, and again in high exposure situations (as in agriculture), are known to be associated with severe health effects in some people. Such exposures seldom, if ever, occur on buildings except during remediation activities by people not taking appropriate precautions.

Should I be concerned about mould? It all depends on how much. Small amounts of mould growth in workplaces or homes (such as mildew on a shower curtain) are not a major health concern.

Large quantities of mould growth, however, are an important public health concern. In addition, mould can damage building materials, in some cases, cause structural damage to stone and wood.

Facts About Mould AIHA® December 2011 4 Who is affected by exposure to mild? There is a wide variability in how people are affected by airborne mould spore exposure. Currently, there is no established airborne concentration that is known to adversely affect any individual’s health.

People who may be affected more severely and quickly than others include: • Infants and children • Elderly people • Pregnant women • Individuals with respiratory conditions or allergies and asthma • Persons with weakened immune systems

If the meld growth was caused by contaminated water, potential pathogens may be present, and the work should be performed by a professional contractor that has experience in cleaning buildings damaged by contaminated water. If the mould growth is due to condensation or small-scale leak and is limited to a small area (less than 10 square feet), you can probably do the work yourself following guidelines such as those that have been prepared by the U.S. Environmental Protection Agency (EPA), Canada Mortgage and Housing Corporation and AIHA.

On hard surfaces, such as building exteriors, countertops and furniture, use detergent and water to wash meld off and then dry completely.

The use of biocides or chemical disinfectants is not recommended as these may be hazardous to occupants. Persons cleaning mould should wear rubber gloves, goggles and an approved respirator to protect against breathing airborne spores (an N95 respirator would be appropriate for most cleanup projects, provided that you are medically capable of wearing a respirator). If you have health concerns, you should consult your doctor before doing any mould clean-up.

Over the past decade or so, the industry has given rise to many individuals and companies who tout themselves as experts and certified in various aspects of mould investigation and remediation, but who may have little or no practical experience. If you choose to hire a consultant to help identify your problem, or a contractor to perform the cleanup in your home, make sure that they have specific work experience in dealing with and cleaning up mould.

With a life time of watching Black mould, 1976 to Present experience is one mandate for this discussion Logical thought and observation may be needed to consider a new approach to Mould growing on and in our wineries.

Topics Presentation start

GH Asbroek

1/.

Mould Trial period and location

Bunamagoo Winery built 2009, Location Mudgee NSW

Trial and observation site commenced 2013

Repeating patterns of mould growth were witnessed from 2009 to 2012, The mould growth cycle was 9 to 12 mths consistently over this period of 2009 to 2012

Building had been washed on 2 occasions.

(Discuss)

2/.

Emulsion (Thin Film) MS 727 (Modified for Mould trail), Designed for use on high rise buildings in China suffering render damaged due to moisture impregnation into substrates causing delimitation of stone finishes

Characteristics NON-polar Hydrophobic, 53 to 56 % H2O content Pure acrylic

Operating range – 40 to - 125 degrees

Erodibility and why, 6. 8 um / year

Hydrophobic

(Discuss)

3/. Supplier and Trial site

Supplier BATF China (Globally the second largest emulsion manufacturer) producing 1,300,000 Tons of emulsion-based products across 7 sites

Trial site

Bunamagoo Winery 2013 Mudgee Australia

4/.

Pervious questions and observations

Lines on walls, combined clean and black mould growth areas

Observations and comments

(Explain)

5/.

Trial Area, progressive Photos

Explain

Explain.

1/. Preparation

2/. Application

3/. Mid trail observations

4/. Conclusion of trail period and result

6/.

Observations, and discussion points.

1/. Polar and Hydrophobic Non polar surfaces

2/. Effect

7/.

Conclusions

1/. Moisture and its role, How moisture can control mould. Theories and observations

2/. Film formation and importance (Gas path Moisture path) past emulsion defects Sealing + adhesion

3/. Chemical composition and clarifications of why chemicals are required in water-based emulsions

4/. Selection process of emulsion

5/. Major changes to emulsions Mid 2012 Increase in H2O content

6/. Costs and life time expectancy

7/. Lifetime and process

8/. Benefits resource usage, Image, Other

End