

17004254  
Antimicrobial Challenge Study  
Prepared for Robert Bennett of Farsight Management  
3/3/2017

## **Purpose:**

To test the antimicrobial properties of an unknown solution applied to two different wooden building materials.

## **Experimental Procedure:**

On 2/10/2017 two pieces of OSB and two pieces of 2x4 were received along with the antimicrobial solution to be used in the experiment.

The wood pieces were autoclaved to sterilize them on 2/11/2017. They were allowed to dry in the breathable autoclave bag until 2/15/2017.

On 2/15/2017 one piece of OSB and one piece of 2x4 were treated with the antimicrobial product and allowed to dry completely. The other piece of OSB and 2x4 remained untreated. The treated and untreated pieces of wood were then inoculated heavily with a *Cladosporium* sp. and placed in a moist chamber under 100% humidity for incubation at room temperature (~25°C). The wood was then incubated for five days and then examined. After the examination the wood was incubated for an additional ten days and then examined again.

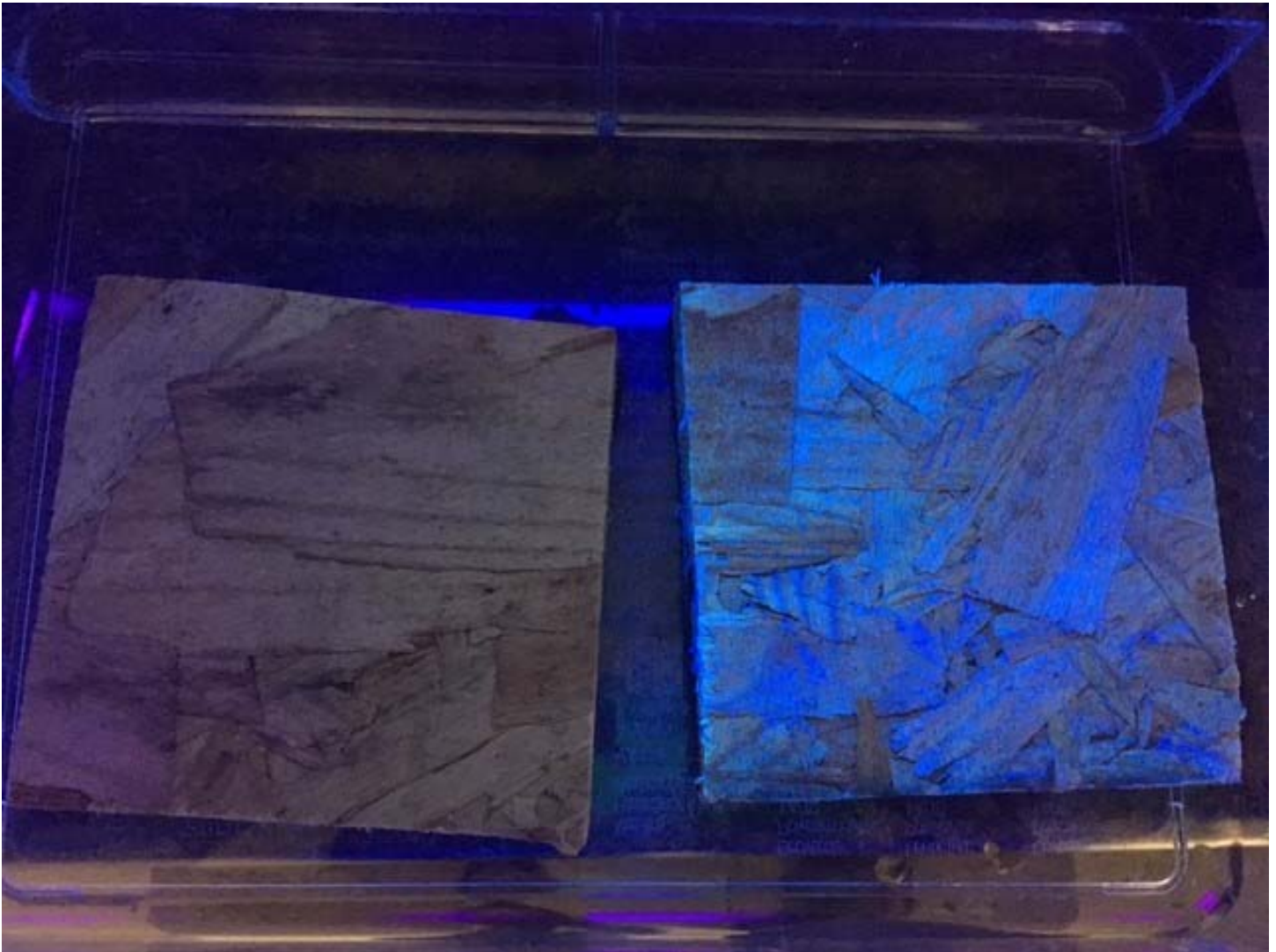
## **Results:**

It was known that the antimicrobial has a fluorescing component. At day five and fifteen the fluorescing component remained strong.

The treated wood, both the OSB and the 2x4 showed no evidence of growth under direct microscopic examination at day five and fifteen. No germination of the *Cladosporium* sp. spores that were inoculated onto the wood could be detected.

For the untreated wood, growth was detected on both the OSB and 2x4 at day 5.

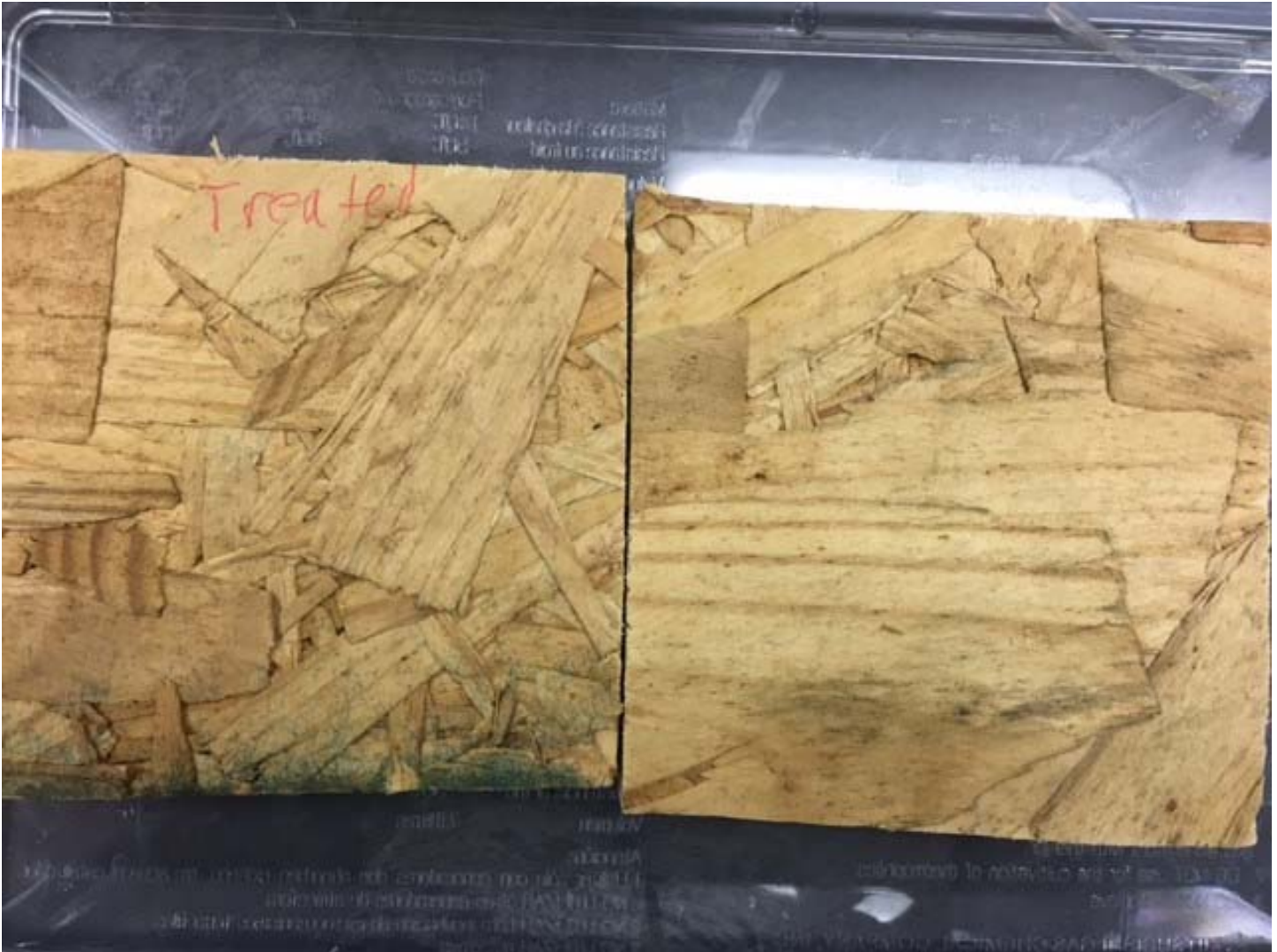
See Appendix A that accompanies this report.



OSB day 15 showing fluorescence



2x4 Day 15 showing fluorescence



OSB day 15 showing growth (lower part of the untreated wood on the right has strongest growth. The treated piece on the left had some green pigment on it but was not associated with fungal growth.)





2x4 day 15 showing growth

Experiment conducted by:  
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