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Healthy Environment
Innovations

Press Release

Healthy Environment Innovations successful test of Sterilray™ Technology.

Bacillus atrophaeus Spore reduced by 99.99% in test.

New Durham, NH, January 15, 2007: Healthy Environment Innovations (HEI) released results of another round of tests on the efficacy of its Sterilray™ Technology using the GermBuster™ Sanitation Wand. The test was performed at Microbiology Research Associates, Inc. in Acton, MA. Testing Bacillus atrophaeus spore suspension produced the following result:

- Bacillus atrophaeus spores dried on a glass slide was exposed to a dose of 100 mj/cm². A kill, representing a 99.99% reduction, occurred representing a log 4.1 reduction.
- HEI conducted this test with a special low-power Sterilray™ lamp in order to control the amount of exposure. The lamp is 1/30 the power HEI will use in the sanitation wand.

Bacillus atrophaeus is an aerobic rod-shaped spore-producing bacterium; often occurring in chainlike formations; found primarily in soil. Note: ATCC 9372 Now called B. atrophaeus (formerly B. subtilis var. niger) RF81959: Fritze D and Pukall R. Reclassification of bioindicator strains Bacillus subtilis.

“Spores are the hardest organisms to kill,” said Ed Neister, president of HEI. “This test proves that we can disinfect surfaces contaminated with most viruses and bacterial pathogens in less than one second using a GermBuster™ Sanitation Wand.”

“This test was designed to show the effectiveness of the GermBuster on pathogens.” said John Neister, EVP. “The GermBuster can treat areas with people 24/7. It also can be used as often as necessary to insure disinfection of a facility.”

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Sterilray™ and Germbuster™ are registered trademarks of Healthy Environment Innovations. in the US and/or other countries.
For more information, press only: John Neister, 603-859-8600, john.neister@he-innovations.com
For more information on GermBuster™ Sanitation Wand: <http://www.he-innovations.com>

For Immediate Release

**MICROBIOCIDAL ACTIVITY OF GERMBUSTER STERILRAY UV WAND PRODUCT
VS. BACILLUS ATROPHAEUS SPORE SUSPENSION ATCC 9372**

Tested for: Healthy Environmental Innovations
PO Box 61
152 Brackett Road
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Product: Germbuster Sterilray UV Wand

Method: Percent Bacterial Reduction

Investigator: James J Barbato
Microbiology Research Associates, Inc.
33 Nagog Park
Acton, MA 01720

Project #: HEI-004 **Report #:** HEI004-008

Notebook Reference: Book 96, Page 81-83

Test Organism:

1. *Bacillus atrophaeus* Spore Suspension ATCC #9372

Method and Procedure: Method: Study #HEI-003

Conclusions:

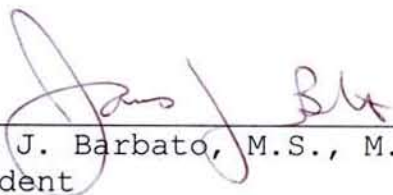
1. The Germbuster Sterilray UV Wand product killed >99.99% of *Bacillus atrophaeus* spores dried on a glass slide in 25 seconds of exposure to 100mj/cm of UV exposure.

Results:

Table I
Percent Bacterial Reduction of
Gerbuster Sterilray UV Wand
vs. *Bacillus atrophaeus* Spore Suspension

** Exposure Time (Sec)	Test Organisms	Time 0 Count/ml	UV Intensity mj/cm²	CFU/ml After Exposure	% Reduction
25	<i>B. atrophaeus</i> (dry slide)	1.72x10 ⁴	100.6/cm ²	1.0x10 ⁰	>99.99

1/15/07
Date


James J. Barbato, M.S., M.P.H.
President

**** HEI conducted this test with a special low-power Sterilray™ lamp in order to control the amount of exposure. The lamp is 1/30 the power that will be used in the sanitation wand. This would result in an exposure of less than 0.83 seconds.**

Bacillus atrophaeus



Unexposed 10^{-3}



100 mj/cm²

GermBuster™
Using **Sterilray™** Technology