

## Certificate of Analysis

**Product:** Mesosilver<sup>®</sup>

**Project:** Phase II: *Aspergillus niger*

**EMSL Reference:** 030321850

### Experimental Design Summary:

Test ability of two (20 and 75 ppm) Mesosilver products to suppress growth of *Aspergillus niger* American Type Culture Collection Strain No. 16404. Spores of *A. niger* were spread onto Malt Extract Agar (MEA) medium and subjected to a total of 28 sprays (3.64 ml) of Mesosilver product as supplied over a three day period. A negative control (no product) was included for comparison. All tests were performed in triplicate.

### Experimental Results Summary:

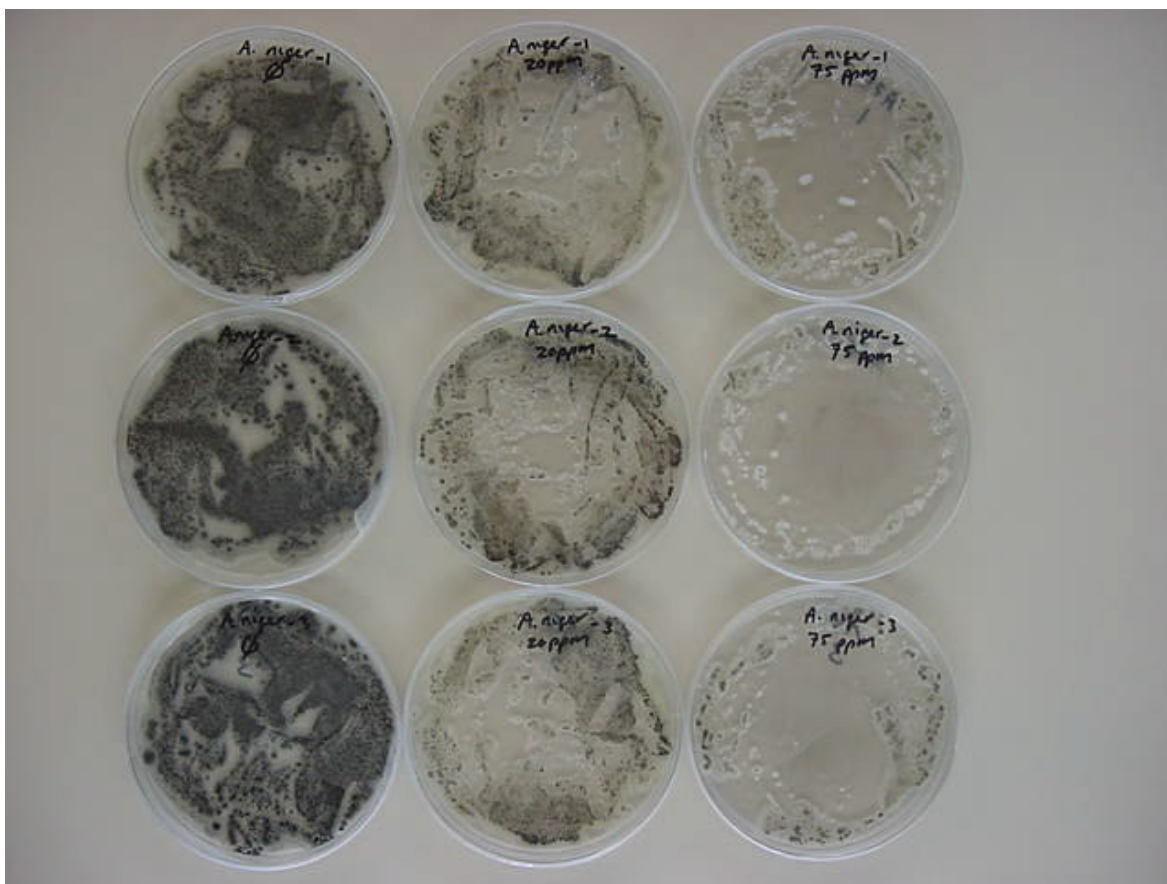
*Aspergillus niger* ATCC 16404 at  $1.8 \times 10^4$  spores ml<sup>-1</sup> was used to determine the effect of Mesosilver on fungal growth. The results show that both Mesosilver products have a negative impact on the growth of *A. niger* (Figures 1 and 2), however only the 75 ppm product was able to successfully inhibit fungal growth in the concentrated spray zone. The 20 ppm product reduced growth approximately 25-50% as compared to the no product control plates.

Analyst \_\_\_\_\_  
Lori L. Daane, Ph.D.

Date 02-02-04

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**Figure 1:** Effect of 20 and 75 ppm Mesosilveron growth of  $9.0 \times 10^3$  *Aspergillus niger* ATCC 16404 spores inoculated onto Malt Extract Agar medium. The plates were inoculated with spores and following a one-hour drying period the plates were subjected to a total of 3.6 ml of Mesosilver product as supplied over a three-day period.



All treatments performed in triplicate and incubated at  $24 \pm 2^\circ\text{C}$ .

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**Figure 2:** Close-up of three representative plates from Figure 1. Note that 75 ppm successfully inhibited fungal growth in the concentrated spray zone while 20 ppm inhibited approximately 25% growth as compared to the no product control.

