

# TheraCann AIR

## Management of Mold and Particle Size - A Study

The purpose of this study was to determine the performance of the TheraCannAIR cleaner at removing airborne *Aspergillus niger* mold spores and airborne particles the size of typical insect pests size from within a sealed indoor space.

### Quantification of *Aspergillus niger*

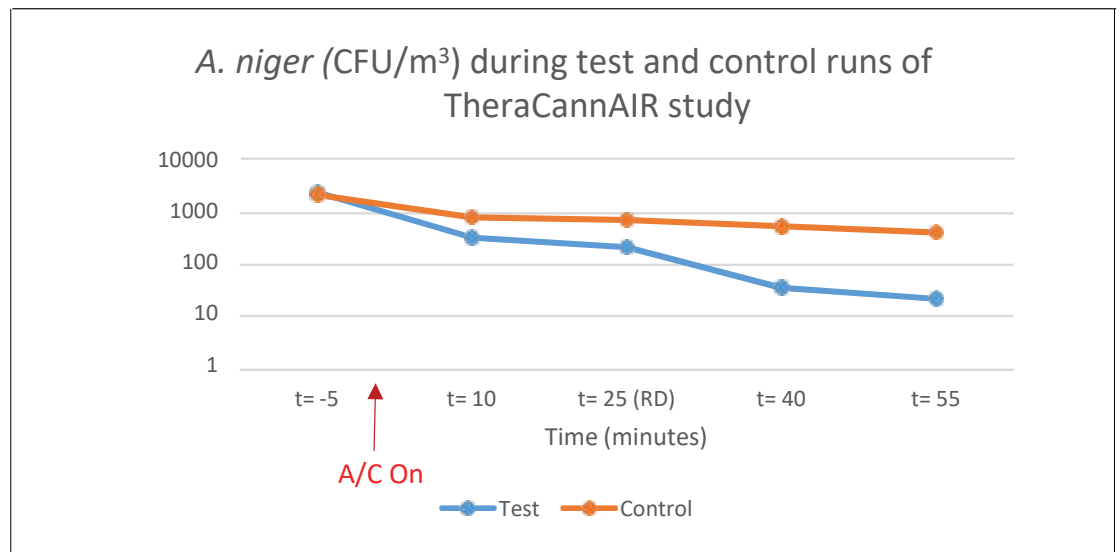
Three air samples were taken at each time point during each experimental run. Test and control runs were performed in triplicate.

**Table 1.1** Quantification of *A. niger* colony forming units from air samples taken in the presence (Test) and absence (Control) of the TheraCannAIR unit

Sample no.	Time (t = x minutes)	CFU/m <sup>3</sup>		% reduction (Test vs Control)
		Control	Test	
	t = -15	Introduction/Mixing		
1	t = - 5	2268	2571	N/a
	t = 0	N/a	A/C turned on	N/a
2	t = 10	833	335	59.7
3	t = 25 (RD)	747	221	70.5
4	t = 40	547	35	93.5
5	t = 55	423	22	94.9

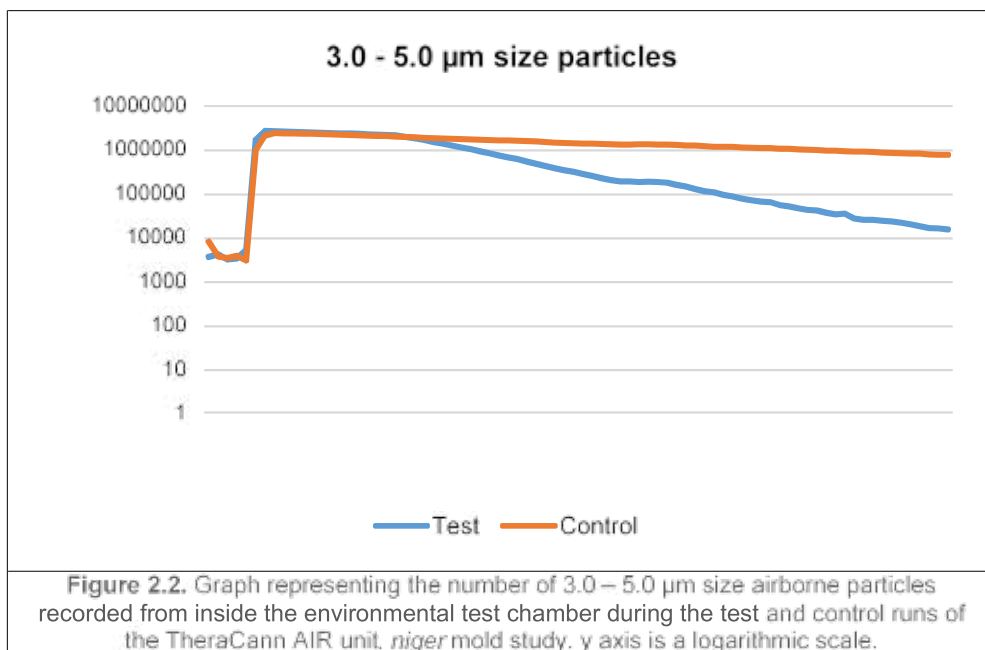
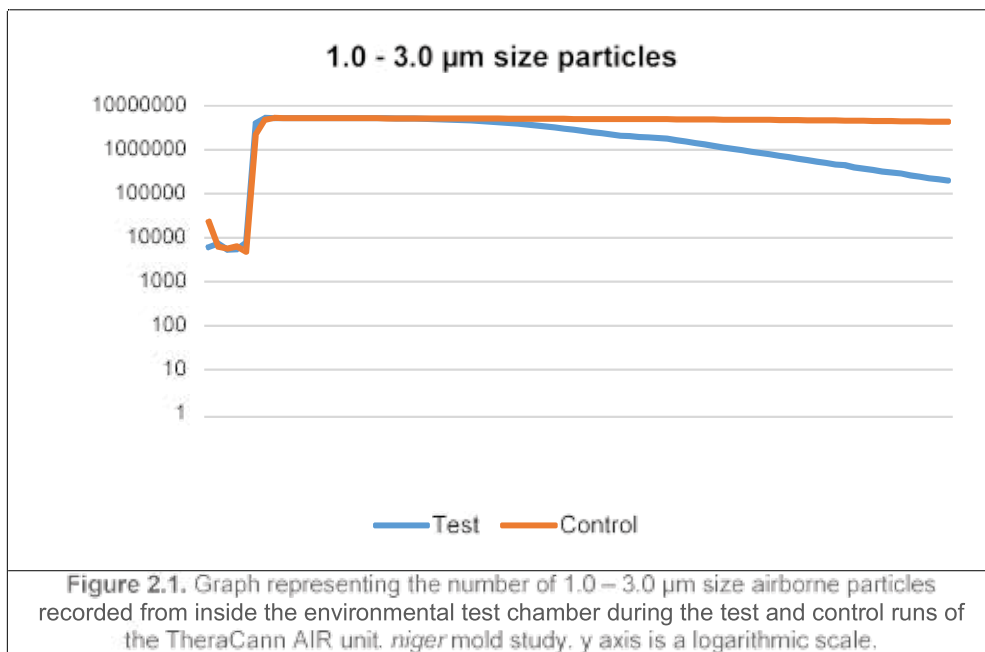
Table 1.1 and Figure 1.1 represent the average number of *A. niger* Colony Forming Units (CFUs) per cubic meter of air from the triplicate runs. During the last sampling point (55 – 60 minutes) of the control runs (no air cleaner) the concentration of airborne mold was 423 CFU/m<sup>3</sup>. In contrast, during the same sampling point of the test runs (air cleaner in operation) the concentration of airborne mold was 22 CFU/m<sup>3</sup>, a 94.9% reduction in airborne *A. niger* spores.

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**Figure 1.1** Graphical representing the results from Table 7.1 of the total number of *A. niger* CFUs measured in the environmental chamber during the test and control runs. y axis is a logarithmic scale

**Particle Counts - effectively managing particles 25,000 times smaller than Spider mites**  
Particle counts measured during the test and control runs are presented in figures 2.1 and 2.2



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1.403.800.2649  
mainweb@theracanncorp.com  
theracanncorp.com