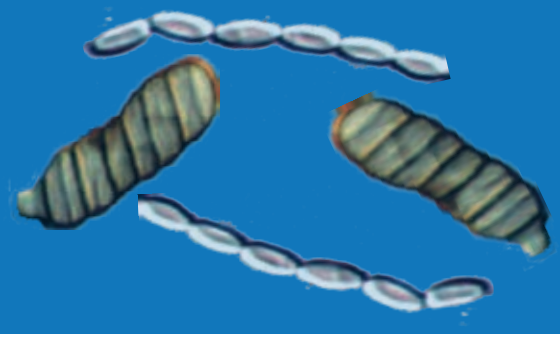


Assured Biotechnology Corporation

November 2008

www.assuredbio.com

Monthly Newsletter

Welcome to the first installment of AssuredBio's monthly newsletter. My goal with these newletters is to facilitate critical thinking and educate the reader. I hope you enjoy!

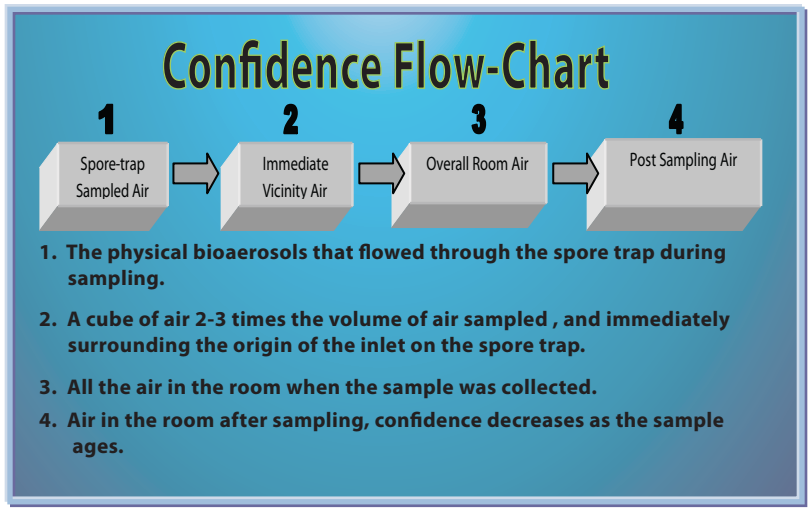
-Edward A. Sobek, **Ph.D.**

President/Lab Director

In this Issue

Spore-Trap: Interpretive Extrapolation

When inside and outside spore trap concentrations are similar, cautious interpretation is advised. Here's why. I like to consider the air in a room or location similar to a movie reel. Each movie frame provides a small amount of information, but the whole reel is needed to tell the story. Likewise, the air in a room, at any particular time of day, only provides a snapshot of what the characters, or in this case mold spores, are doing. The whole story becomes clear only with continuous air monitoring, such as a Burkard seven day sampler or by taking a surrogate sample from undisturbed dust. Let's continue our train of thought. Suppose a spore trap sample is a single frame in our hypothetical "air movie". It then represents a brief snapshot of mold spores and other particles in the air at the time it was collected. Time is the important factor here. Skip ahead movie frames by a minute, and the new frame is likely to have nothing in common with the previous frame. Likewise, spore traps taken in the same room are likely to be dissimilar if the time between sampling is separated by hours or days. Thus, spores traps provide the best representative data for the air that was sampled at the exact time the spore trap was collected. Knowing that, any prediction or extrapolation of the future room spore concentrations (hours or days later), is tenuous at best. Therefore, like most of the indoor environmental professionals (IEP) I work with, a good IEP will have multiple lines of data or evidence to support his or her conclusion. However, there comes a point when every inspector only has supportive air sampling data to make a case. During those times, I suggest using a confidence flow chart as an aid to generating conservative hypotheses. Yes hypotheses, the more the better. By considering various possibilities you will hone both your deductive and inductive analytical skills and ultimately increase your capabilities to interpret difficult indoor air quality problems. I have diagrammed a confidence flow chart (above) to help with the process



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TheTrace

What is the trace?

The trace is the area of air impaction located inside a spore trap which can be utilized to determine the quality of the air indoors. The trace is the sample itself which the lab examines under the microscope. This is done to determine the presence/absence or the concentration of mold spores and particulates that have become airborne. The trace is a "grab sample". This means it is taken at a single (representative) point in a room for a short (single) period of time. From this, mold spores and other particulates can then be identified and counted. These counts are then placed into a formula which is dependent on the total volume of air collected during sampling. This formula will yield an estimate of the spore burden per cubic meter of air in the room.

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