



Executive Summary
Analysis of David Lewis' Theories Regarding Biosolids
September 20, 2001

A leading critic of the safety of land application of Class B biosolids is David L. Lewis, Ph. D., a microbiologist with the U.S. EPA. Dr. Lewis is currently an expert witness in *Marshall v. Synagro-WWT*, the first ever lawsuit alleging that exposure to pathogens and irritant chemicals from biosolids caused human death and injury. He has also offered public opinions linking biosolids to the 1994 death of a Pennsylvania boy, Tony Behun.

Synagro presents evidence in this paper of the weakness of Dr. Lewis' position to better enable government officials and the public to evaluate and respond to Dr. Lewis' vocal attacks on Class B biosolids and his efforts to link land application to death and injury. Based on depositions provided in the *Marshall* case and other documentation, it is clear that Dr. Lewis' theories are scientifically unsound and that he lacks the scientific experience and credentials to offer opinions on biosolids issues. Specifically:

- Dr. Lewis does not have the fundamental training and experience related to biosolids science, exposure and causation protocols, and public health assessment needed to establish valid links between land application and human health effects.
- He has had little or no research experience with biosolids prior to the *Marshall* case.
- He has used faulty and insufficient data, methods, and protocols to develop his theories. In fact, his initial air modeling efforts in the *Marshall* case were withdrawn.
- He has failed to identify specific chemical compounds and/or pathogens in biosolids, emission rates, exposure routes, and dosages, which are necessary to prove causation.
- Dr. Lewis relies extensively on unreliable and biased anecdotal reports to support his conclusions of health impacts both in the *Marshall* case and in other incidents across the country where harm was claimed due to land application of biosolids.
- His work and writings on biosolids have never been peer reviewed and he has yet to be accepted by a court of law as an expert witness regarding biosolids issues.
- He has misrepresented the work of other biosolids researchers and regulators, and the facts of other cases involving exposure to biosolids.
- Dr. Lewis' activities regarding biosolids are not sponsored by the EPA, and he has misrepresented the development of regulations governing land application of biosolids, 40 CFR Part 503.

While Synagro respects the right of Dr. Lewis to pursue public advocacy, we believe it is necessary that all parties debating the practice of biosolids land application use sound science to support their positions and avoid misleading and sensationalized allegations that serve only to instill fear in the public.