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Pesticide Mitigation
Using Existing
Agricultural Landscape:
20 Years of Research

Δευτέρα, 21 Μαΐου 2018

Ώρα: 14:30-15:30

Αμφιθέατρο Κτηρίου Υδραυλικής

Δ.Π.Μ.Σ.
«Επιστήμη &
Τεχνολογία
Υδατικών Πόρων»

ABSTRACT

With increased global demand for fuel and food production, a major intrinsic cost may be damage to downstream aquatic ecosystems due to agricultural non-point source contamination.

Implementation of natural landscape features, such as agricultural drainage ditches, are part of the solution in reducing toxicological or biological effects caused by potential upstream contamination. To the casual observer, agricultural drainage ditches serve only to move water from the field to nearby streams, rivers, or lakes.

A closer look, however, indicates these unique structures can provide vital ecosystem services such as contaminant mitigation. For the last two decades core groups of scientists from around the world have evaluated the physical, chemical, and biological processes in vegetated drainage ditches to elucidate their value and benefit to both agricultural and downstream aquatic ecosystems. This presentation will focus on the history of the development of this unique best management practice and will highlight the importance of utilizing both environmental chemistry and aquatic toxicology in validating this strategy.

BIOGRAPHICAL SKETCH

Dr. Bennett is an Environmental Chemist who manages Research-into-Practice programs tackling a spectrum of innovative project types that span preliminary investigation through full-scale implementation. He has over twenty years of international experience in the subfield of environmental analytical chemistry, with emphasis on determining environmental levels of contaminants and developing green strategies to reduce toxicological effects and environmental loadings. He utilizes an interdisciplinary approach, applying his experience in chemistry, freshwater ecology, hydrology, ecotoxicology, and environmental modeling to aid in the development and assessment of these complex strategies. He collaborates with scientists, engineers, economists, and construction professionals to take new ideas into practice successfully, addressing technical and regulatory concerns. His work has served municipal, private, and federal clients, and evolved over time to span a novel array of emerging complex technology topics such as management of nanoparticles, novel decentralized wastewater treatment systems, and net-zero energy systems for new communities. Currently, Dr. Bennett is the Editor-in-Chief of the peer-reviewed scientific journal *Bulletin of Environmental Contamination and Toxicology*.

Erin Bennett, Ph.D.

Editor-in-Chief

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