Phosphorus-Based Management for Municipal Biosolids: National Survey of Current Status and Future Trends. (S11-sims094718-Oral)

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Abstract:

The application of biosolids to agricultural soils provides phosphorus (P) in excess of crop needs when applied at nitrogen based agronomic rates. This can result in the buildup of P in soils to levels above those needed for optimum crop yields and also increase risk of P loss to surface and ground waters by erosion, runoff and leaching. The Federal biosolids regulations (40 CFR Part 503) do not limit the amount of P that can be land applied. Because of concerns about the impact of P on water quality in the U.S., many state and federal agencies now recommend or require P-based nutrient management plans for agricultural operations that use animal manures. Similar actions are under consideration for the land application of biosolids. We conducted a national survey to determine if states had restrictions on P levels in biosolids and soils at land application sites. Results showed that more than 20 States have regulations or guidelines that can be imposed to restrict land application of biosolids based on P. Many of these states include numerical criteria for P in biosolids. Other states are preparing draft regulations that would include some P-based restrictions on land application.

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Presentation Information:

Presentation Date: Wednesday, November 13, 2002

Presentation Time: 2:15 pm

Keywords: biosolids, phosphorus