

WATER

Biosolids Management In Oklahoma

Considerations of a Biosolids Land Application Process

Project Planning -

The first step for a municipality or a private contractor in planning and managing a land application program entails a review of the treatment facility for information about the characteristics of the biosolids produced by that plant. Next, there should be a review of Oklahoma's specific regulatory requirements. The location of the treatment plant also determines whether suitable sites are available within reasonable hauling distance.

Agricultural practices in the area have a considerable impact on site availability throughout the year. The types of crops grown and the crop rotation system will establish the times of year when land is available for biosolids application. Because sites may be available only at certain times, substantially more acreage than needed in a given year should be permitted to receive biosolids.

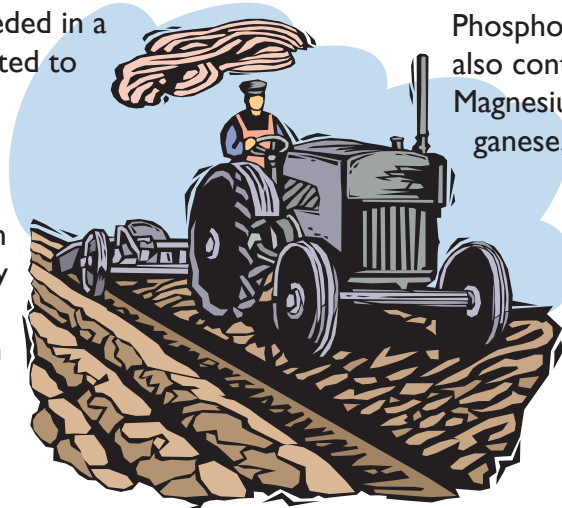
Design Criteria - I

If proper steps are taken in designing the system, very few sites are totally unacceptable for land application of municipal biosolids. However, there are a



number of site-specific factors which should be assessed adequately prior to determining whether a particular site can be used effectively for land application. These include: soil type, flooding susceptibility, slope, depth to seasonal groundwater table, permeability of the most restrictive soil layer, cropping patterns, vegetative cover, and organic matter content. Since many suitable sites will not be ideal, the planner must carefully consider such factors when choosing actual application sites and designing projects.

Once a suitable application site has been selected, biosolids should be applied to agricultural land at the agronomic rate, the rate that is equal to or less than the amount of Nitrogen (N) and Phosphorus (P) needed by the crop. Biosolids also contain other plant nutrients- Calcium, Magnesium, Sulfur, Boron, Copper, Iron, Manganese, Molybdenum, and Zinc.



FOR ADDITIONAL INFORMATION ON THIS SUBJECT YOU MAY CONTACT YOUR LOCAL DEQ REPRESENTATIVE OR THE WATER QUALITY DIVISION OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY AT (405) 702-8100.