

## **Biosolids Talking points**

- Biosolids are the nutrient-rich organic materials resulting from the treatment of domestic sewage at a wastewater treatment facility. Through biosolids management, solid residue from wastewater treatment is processed to reduce or eliminate pathogens and minimize odors, forming a safe, beneficial agricultural product.
- Millions of tons of residuals are generated each year when treated water is separated from the solids. Local agencies must weigh the needs of their communities when looking for an environmentally- and financially-sound method of disposal while meeting their fundamental commitment to protecting public health. These options include land application, incineration, surface disposal, or land filling of biosolids. When conducted in compliance with federal and state regulations, land application of biosolids is considered to be a safe and cost-effective option for communities.
- Recycling biosolids is good for the environment. Organic matter has been recycled for centuries to improve soil fertility and productivity. When properly applied and managed, biosolids can provide essential plant nutrients; improve soil structure and tilth; add organic matter; enhance moisture retention; and reduce soil erosion.
- Biosolids recycling is regulated and encouraged by the United States Environmental Protection Agency and state and local authorities. Research and years of recycling experience have demonstrated that properly managed land application of biosolids is an environmentally safe option for communities.
- Decades of research and actual application of biosolids have resulted in an overwhelming scientific agreement among qualified researchers that the use of biosolids in accordance with existing Federal guidelines and regulations, presents negligible risk to the consumer, to crop production, and to the environment. In fact, the science-based approach used in developing the biosolids standards could serve as a model for policy and regulation in other areas of agricultural production and food safety.
- Farmers and gardeners have been recycling biosolids for ages. Biosolids recycling is the process of beneficially using treated residuals from wastewater treatment to promote the growth of agricultural crops, fertilize gardens and parks and reclaim mining sites. Land application of biosolids takes place in all 50 states.
- EPA estimates that the 16,000 publicly owned treatment works generate approximately 7 million tons of sewage sludge. About 60% of all sewage sludge is converted into biosolids that is beneficially used as a fertilizer on farm land

following treatment; 17% ends up buried in a landfill; 20% is incinerated; and about 3% is landfill or mine reclamation cover.

- Only a small percentage (much less than 1 percent) of the total food supply has been fertilized with biosolids. Biosolids provide farmers with \$60 to \$160 per acre worth of fertilizer, including many essential nutrients that the farmer may not normally replenish in the soil. Biosolids also contain valuable organic matter that improves the health, quality and structure of the soil.
- As a result of its decade-long assessment of biosolids, EPA concluded that recycling biosolids to land was an environmentally responsible solution, when used in accordance with the Part 503 rule. The Federal policies supporting and promoting the beneficial recycling of biosolids are based upon sound science that has demonstrated the benefits of such recycling. These policies are not driven by economics and the choice to recycle biosolids remains a local decision.
- The federal biosolids rule is contained in 40 CFR Part 503. Biosolids that are to be land applied must meet these strict regulations and quality standards. The Part 503 rule governing the use and disposal of biosolids contains general requirements, numerical limits, for metals in biosolids, pathogen and vector attraction reduction standards, management practices and frequency of monitoring, record keeping and reporting requirements for land applied biosolids as well as similar requirements for sewage sludge that is surface disposed or incinerated. Most recently, Part 503 requirements have been proposed to limit the concentration of dioxin and dioxin like compounds in biosolids to ensure safe land application. Biosolids are one of the most studied materials that have ever been regulated by EPA.
- To determine whether biosolids can be applied to a particular farm site, a good management practice includes an evaluation of the site's suitability and is generally performed by the land applier. The evaluation examines water supplies, soil characteristics, slopes, vegetation, crop needs and the distances to surface and groundwater.
- Class A biosolids contain no detectible levels of pathogens and must meet strict vector attraction reduction requirements and low levels metals contents. The biosolids preparer usually applies for a permit and only have to apply for permits to ensure that these very tough standards have been met. However, the Part 503 requirements have to be met even if there is no permit. Class B biosolids are treated but still contain detectible levels of pathogens. There are buffer requirements, public access, and crop harvesting restrictions for Class B biosolids. (The land application site restrictions have to be met in all cases where Class B biosolids are land-applied.)
- Nutrient management planning ensures that the appropriate quantity of biosolids is land applied. The biosolids application is specifically calculated to match the

nutrient uptake requirements of the particular crop. Nutrient management technicians work with the farm community to assure proper land application and nutrient control.