

Spray and Drip Irrigation

Currently, the most common way community treatment plants dispose of wastewater after treatment is to discharge it to surface waters. Reusing wastewater to irrigate land can help protect precious surface water resources. Treated wastewater can be reused to irrigate: lawns, parks, landscaped areas around offices and industrial developments, pasture grass, highway medians, golf course, cemeteries, forests, feed crops and food crops. Two types of wastewater irrigation systems are spray systems and sub-surface drip systems.

Spray Irrigation

Advantages

- Increases levels of nitrogen, phosphorus, and minerals in the soil
- Provides uniform distribution of wastewater to vegetation and eliminates discharge to streams
- Above ground spray system components are easier to inspect, control and service

Disadvantages

- Generates aerosols which can pose a threat to public health
- Wet soil surface promotes weed growth
- Above ground spray equipment is exposed to the elements and can be damaged or vandalized

Subsurface Drip Systems

Advantages

- Water and nutrients are delivered directly to plant roots
- Less water is required when irrigating with drip systems
- Fewer problems exist with odors, ponding and runoff

Disadvantages

- Subsurface Drip Systems
- Emitters can potentially clog
- Difficult to monitor

Common Suppliers

Irrigation Association - <http://www.irrigation.org/>

Source

- National Small Flows Clearinghouse – Pipeline Winter 1999 Issue, “Spray and Drip Irrigation for Wastewater Reuse, Disposal” http://www.nesc.wvu.edu/pdf/WW/publications/pipline/PL_WI99.pdf