

CAN ALL SLUDGES BE APPLIED TO LAND? No. Only sludges that are low in heavy metals and have been biologically stabilized are acceptable for agricultural crop utilization. The amount of heavy metals in sludge used for land application must meet established US-EPA limits. Sludge is not considered suitable for application to land unless it has been stabilized to reduce odor-causing components and/or pathogen levels. Examples of stabilization processes include anaerobic digestion, aerobic digestion, and lime stabilization.

ARE THERE ANY RESTRICTIONS ON WHERE SLUDGE CAN BE APPLIED? There are restrictions on soil conditions and steepness of slopes where sludge can be applied. In addition, there are restrictions on how close sludge can be applied to wells, streams, occupied buildings, roads, and property lines. These buffer zones, which vary depending on the method of application and the specific site, are intended to protect wells and surface waters and to minimize nuisance potential.

WILL SLUDGE APPLICATION BE UNSIGHTLY OR HAVE AN ODOR? Sludge looks like wet peat moss. Sludge applied on cropland can be either injected or incorporated into the soil by disking and only a thin layer is applied. Many of the odor-causing compounds have been removed by stabilization processes but a slight earthy odor in the immediate area is noticeable. The odor, which is not as strong nor as offensive as raw sewage or manures, usually disappears in a short period of time. When applied to meadows or minelands, the release of ammonia nitrogen may cause a distinct odor for several days. Surface application of sludges may cause the volatilization of much of the 20-30 percent of the nitrogen which is in the inorganic form.

WILL SLUDGE APPLICATION AFFECT PROPERTY VALUES OR FUTURE LAND USE? The land application of sludge should not affect the property value. The use of the land will be restricted for a short time after application. Leafy green vegetables and root crops should not be planted until one growing season after the sludge is applied, usually 12-18 months. Tobacco should not be grown for at least three years after sludge application. Animals are not allowed to graze on sludge-amended pastures for one month after application and public use of sludge-amended lands is discouraged for one year. Except for these short-term restrictions, there should be no impact on the future use of the land.

WHAT ARE THE BENEFITS FOR AGRICULTURAL PRODUCTION FROM THE USE OF SEWAGE SLUDGE? Sewage sludge, used at agronomic rates, provides the nitrogen and phosphorus normally applied as an inorganic fertilizer. In addition, other plant nutrients (such as calcium, magnesium, zinc, copper) are present in varying amounts. Most sludges are low in potash, and this nutrient may need to be added as a supplement to the sludge. The organic matter in the sludge improves the physical, chemical, and biologic properties of the surface soil.

WHO BENEFITS FROM LAND SPREADING OF SLUDGE? We all do. Sewerage customers get an economical disposal plan which helps keep rates down. Farmers get a free or low cost nutrient source that improves the physical and biological condition of the soil. It avoids the pollution potential from landfill dumping and incineration.

WHERE CAN I GET MORE INFORMATION? Specific questions concerning agricultural aspects of land application should be addressed to your local County Extension Office, which also has publications providing agricultural and planning information on sludge use. Although there are no specific laws or regulations prohibiting land spreading of sludges on private land, it is wise to follow the voluntary rules established by DNR Water Resources Division. This involves an evaluation of recent chemical analyses of the sludge and of the topsoil for each separate field to be treated, as well as a thorough site evaluation. For general questions, contact Dr. Willem van Eck, WVU Soil Testing Lab, Morgantown, WV 26506-6108 (293-2219).

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