



**NORTHWEST
BIOSOLIDS**

www.nwbiosolids.org

Unearthing
Sustainable
Solutions

LANDSCAPING AND GARDENING

Fact Sheet

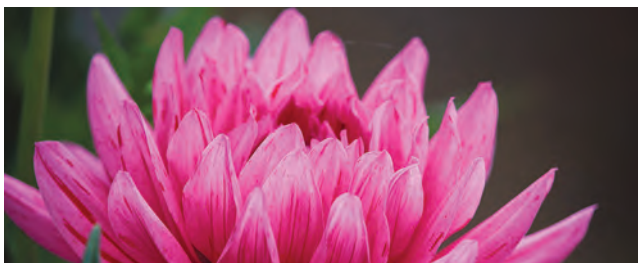
“Exceptional Quality” biosolids used in landscapes and home gardens improve the physical and chemical characteristics of soil.

SEEKING SOLUTIONS

Landscapes in urban and suburban areas often have very little natural topsoil, or the top layer of the soil in which plants grow. When urban and suburban communities are built, all the construction and heavy equipment compacts the existing topsoil, or in some cases, removes it entirely. Sometimes construction sites need to be leveled or filled in, and often the fill dirt that is used is not good quality soil. It can take a long time for nature to fix unhealthy soil.

BENEFITS OF BIOSOLIDS

Biosolids are filled with nutrients and organic matter, the very thing that unhealthy soils need. The organic matter helps build the soil’s structure, which helps it hold water (or drain water), reduces erosion, and provides an ideal environment for plants. Soil microorganisms get really happy, and go to town breaking down the organic matter and releasing nutrients for the plants. All of this happens at warp speed, and soon degraded urban and suburban soils are healthy again. Healthy soils means healthy plants and a healthier, green environment for the people that live in these urban and suburban areas.



Biosolids have many benefits for urban landscapes and gardens:

- **As a fertilizer** - Biosolids products add essential plant nutrients, such as nitrogen, phosphorus, and micronutrients to the soil. These nutrients are released slowly as plants need them, which protects local water quality from nutrient leaching and reduces the need for synthetic fertilizers.
- **As a soil amendment (soil builder or soil conditioner)** - Composts and other biosolids products don’t just add nutrients, they also improve the physical characteristics of the soil. Compact and clay heavy soil soils are broken up and made lighter, which allows them to drain more effectively, while sandy soils amended with biosolids products hold water better.
- **As a mulch:** Some biosolids products can be used as a mulch, which reduces watering needs, prevents weeds from sprouting, and adds beauty to the landscape.
- **As a potting medium:** When mixed with bark, biosolids products provide an ideal medium for potted plants and nursery and greenhouse container production. Biosolids compost makes an excellent substitute for manure composts, peat moss, or other ingredients in typical soil mixes. Many nurseries in the Pacific Northwest use biosolids potting mixes, and research backs up these high performing mixes.



HOW IT WORKS

Biosolids products available to the public for gardening and landscaping meet the U.S. Environmental Protection Agency's "Exceptional Quality" Class A requirements. This means that 100% of pathogens are killed, and metal concentrations are extremely low (typical of other soil products). Extensive monitoring and testing is used to ensure that these products meet this standard.

Processes such as composting, heat treatment, lime treatment, or thermophilic digestion are used to meet this standard. Composting is the most common process, and mixes biosolids with materials such as sawdust, wood chips, or yard waste, often in large piles that are turned or aerated. During composting, microorganisms break down the organic material into compost and create high heat conditions that kill pathogens. Heat treatment uses high temperatures to sterilize the biosolids, or uses a drying process. Lime treatment uses chemical reactions to create high heat conditions and elevated pH conditions that kill pathogens. Thermophilic digestion also uses microorganisms and high heat, but the process occurs in a big tank. Thermophilic digestion produces straight biosolids, which are more nutrient-rich than compost products.



Sawdust, wood chips, leaves, and biosolids compost away at Lyden's facility.

WHAT'S HAPPENING?

Utilities across the Pacific Northwest have been using their "Exceptional Quality" biosolids products on landscapes and gardens for decades. Demand for these products often exceeds the available supply. From landscaping parks to creating lush lawns to feeding locals through urban gardens, biosolids products continue to show their benefits to urban and suburban communities. Visit <https://nwbiosolids.org/what-are-biosolids/where-do-i-get-them> to find out where you can get biosolids in your community!



Veggies grown with a Class A biosolids product.



Kelowna's Ogogrow grows beautiful gardens and landscapes

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