nutrifor
nutrients for healthy soil

Ensuring Biosolids Safety

Metro Vancouver has used biosolids safely and responsibly for over 30 years

What are Biosolids?

Biosolids are a nutrient-rich fertilizer. They are the organic material that is recovered from advanced wastewater treatment. This material is treated at high heat and broken down by microorganisms to eliminate harmful bacteria and reduce odours.

The end result is a rich, earthlike product that can be directly applied to land as a fertilizer or used as an ingredient to build soil. Nutrifor is the brand name for Metro Vancouver's biosolids.

How are Biosolids Regulated?

The Organic Matter Recycling Regulation, developed by the Ministry of Environment and Parks and the Ministry of Health, sets standards for biosolids quality and regulates how biosolids are made and used on land in BC.

Going Beyond Regulatory Requirements

Metro Vancouver continuously tests its biosolids, performing over 13,000 tests each year to make sure that they always meet or go beyond the requirements of the Organic Matter Recycling Regulation. We never use biosolids that don't meet regulatory standards.

What's in Biosolids?

Biosolids are made of organic matter and can also contain other materials that come from products that are part of our daily lives. Because these materials are present in our bodies, our environment and our wastewater, they can also be present in biosolids at low levels.

These include:

- Per and polyfluoroalkyl substances (PFAS) – found in items like household cleaners, food packaging, clothing, carpeting, beauty products, non-stick pans, rain coats, dental floss, and firefighting foam
- Pharmaceutical and personal care products, such as medications, toothpaste, soaps and shampoos
- Trace amounts of basic elements, including metals that are naturally present in soil and rock

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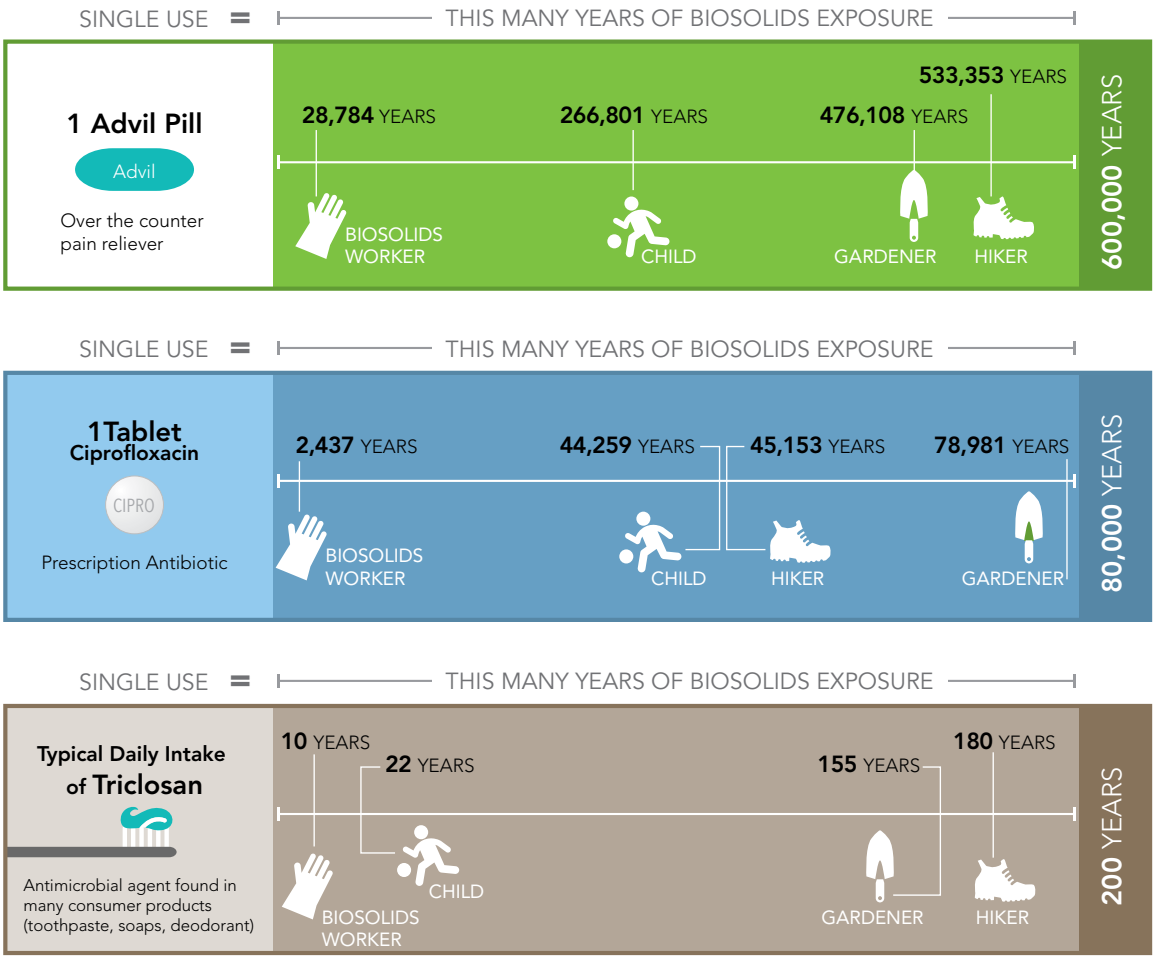
Is There a Risk?

In addition to organic material, biosolids can contain small amounts of other materials that we use in our daily lives.

Studies show that we are exposed to these materials at far higher levels when we use common household products than when we are exposed to biosolids. Because the amount of these materials in biosolids is so low, the risk to human and environmental health is very low:

- It would take multiple lifetimes of gardening around biosolids to equal our everyday exposure to antimicrobials found in soap and toothpaste
- It would take a child over 266,000 years of playing near, touching, and ingesting biosolids to be exposed to the amount of ibuprofen contained in one tablet of over-the-counter pain relief medication (like Advil)
- Low levels of heavy metals in biosolids — like copper and zinc — exist in nature and provide vital nutrients to plants, animals, and people. The Organic Matter Recycling Regulation regulates the concentration of these elements that can be present in biosolids, based on safety levels that have been determined for these materials.

Exposure to Biosolids Compared to Use of Common Products



It would take many years of working or playing around biosolids or landscaping soil containing biosolids to equal exposure to many common products.

SOURCE: KENNEDY/JENKS CONSULTANTS - METRO VANCOUVER BIOSOLIDS RISK ASSESSMENT 2017