

Strategies and Techniques to Mitigate Soil Contamination

ORGANIC MATTER

How:

Add compost · biosolids · biochars to soils

Benefits:

Promote soil aggregates that adsorb contaminants · Improve soil structure · Reduce erosion · Reduce fine particle suspension in air

LIMING

How:

Add Ca and Mg rich material in soils

Benefits:

Increase in soil pH · Reduce trace metal availability to organisms · Increase soil aggregates and texture

What is a soil aggregate? These are soil particle groups that are bound together stronger than the particles around them. Pore space is formed around these which helps the soils move or retain water and helps the movement of air within the soils.

CONSERVATIVE TILLAGE PRACTICES

How:

Use no-till · ridge-till · strip-till methods · Have stable vegetation coverage

Benefits:

Immobilize metals in soils · Reduce topsoil erosion · Lower organic mineral decomposition rates · Longer remediation rates from organic matter · Increase soil aggregates · Reduce fine particle suspension in the air

PLACEMENT

How:

Install garden areas at least 50 meters from heavy traffic areas

Benefits:

Directly avoid accumulation of contaminants in soils

DUST CONTROL

How:

Add mulch on contaminated soils · use drip irrigation

Benefits:

Reduce fine particle suspension in air · Reduce flooding and spashing · Decrease risk of recontamination of surface soil or plant tissues

