

Soil Health is Public Health

Health Equity Council

Executive statement

Healthy soil impacts public health. Soil can be evaluated by what infects, heals, contaminates, and nourishes us. Soil also impacts what we breathe. Understanding that where soil and humans meet is a zone of maximum life we can strive for a situation where both soil and humans reach a state of well-being. This perspective can impact carbon cycling, heat island effect, nutrition enhancement for food, and air quality.

Background

Soil is a living and life-giving substance that sustains plants, animals, and humans. Soil has both direct and indirect impacts on public health. Soils contain organic matters, fungi, bacteria and other biological and chemical components that positively impact human health. Soils also act as a pathway of exposure for contaminants that humans come into contact with through ingestion, inhalation and dermal contact.

Healthy soils store more carbon; more water; and a balance of soil organic matter, fungi, and beneficial bacteria. Soil health is the continued capacity of soil to function. Improving soil health improves water quality, reduces erosion, increases financial and productivity gains for farmers, provides more consistent yield as it needs fewer chemicals and pesticides, increases soil carbon sequestration, retains nutrients and organic materials beneficial to human health development, and reduces the risks of harmful contaminants.

Recommendations

Recommendation 1: Soil health strategy

Develop a soil health strategy with the local farmers, urban gardeners, and local soil health experts to integrate soil health with other environmental issues; identify key research, policy, practice, and education efforts; to promote local research; to educate public and local lawmakers about the benefits of healthy soil; and to gather community input.

Recommendation 2: Assess air and water quality

Develop regulatory process for the Environmental Health Department to assess local air and water quality regulations and policies that impact soil health.

Recommendation 3: Soil health initiative

Develop a soil health initiative and program to fund, provide technical assistance, and promote data collection, soil assessment, and healthy practices.

Recommendation 4: Increase yards that are green

Provide incentives and education to increase the number of yards and urban spaces that are green.

Recommendation 5: Tree coverage

Increase tree coverage to improve soil, water and local air quality.

Recommendation 6: No-till practices

Provide financial incentives for and education on no-till practices. No-till practices improve soil structure, improve soil health, increase the soil's ability to absorb and retain water, reduce erosion, increase yield, increase yield efficiency, and maintain a healthy nutrient cycle.