



An Overview of Soils and Human Health

Eric C. Brevik

Dickinson State University, Natural Sciences and Agriculture and Technical Studies, Dickinson, United States
(eric.brevik@dickinsonstate.edu)

Few people recognize the connection between soils and human health, even though soils are actually very important to health. Soils influence health through the nutrients taken up by plants and the animals that eat those plants, nutrients that are needed for adequate nutrition for growth and development. Soils can also act to harm human health in three major ways: i) toxic levels of substances or disease-causing organisms may enter the human food chain from the soil ii) humans can encounter pathogenic organisms through direct contact with the soil or inhaling dust from the soil, and iii) degraded soils produce nutrient-deficient foods leading to malnutrition. Soils have also been a major source of medicines. Therefore, soils form an integral link in the holistic view of human health. In this presentation, soils and their influence on human health are discussed from a broad perspective, including both direct influences of soils on health and indirect influences through things such as climate change, occupational exposure to soil amendments, and the role of soils in providing food security.