Soil Degradation:

Nutrient density of produce has decreased exponentially overtime due to soil degradation from impacts of industrial agriculture and the chemical use of pesticides, herbicides, and fertilizers.

Why care?

carbon sequestration

clean water

Health

Soils sustain 95% of all food production

Nutrient Density decrease

The decrease in nutrient density of produce has led to cardiovascular disease, cancer, and Alzheimer's being the leading causes of death in the U.S. and all are nutritionally related to health.

Poses a threat to food security and environmental quality

In the U.S. the societal + environmental costs of soil degradation is $85 billion per year

Causes

Modern agriculture is responsible for 80% of soil degradation

- Improper cultivation practices (ex. monocropping) depletes soil of nutrients and carbon
- Using tillage breaks up aggregates in soil and does not let organic matter deposit
- Misusing fertilizers leaches natural nutrients from soil
- Herbicides, pesticides, and fungicides all disrupt the natural pH of soil and add unnecessary chemicals

- **To start to solve this issue we need to increase soil regeneration so that plants can get the nutrients they need to produce nutrient dense food.**
- **To do this we need to use sustainable farming techniques by using no-till methods and crop rotations so that nutrients can resume their natural cycles.**
- **Fertilizers and other chemical additives should be used conservatively and only when properly needed and applied.**

One study found that in the 1920's corn's protein content had declined by 30%. By 2001 it had declined even further to 50%

Conserving soils is the basis of well-being for humans + nature. We need to choose a future that creates social + ecological justice. When soils are healthy, human conflict and ecosystem damage lessen. Soils are the foundation to a good social, economic, and ecological future.

What can I do?

Plant a tree! The more the better.

Compost to add organic matter!

Never leave bare soil behind!

Keep learning about our soil.