

Agriculture and Food Systems

Who

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What

- Farming
- GMOs
- Chemical Use-run off
- Food Distribution
- Locovore Movement
- SNAP

Agriculture

- Agriculture: The science or practice of farming, including cultivation of the soil for the growing of crops and the rearing of animals to provide food, wool, and other products



Farming: Hydroponics

- Definition - A method of growing plants using mineral nutrient solutions, in water, without soil.
- Researchers discovered that while plants absorb essential nutrients, soil is not essential for plants to grow. In the wild, soil acts as a provider for nutrients but isn't necessary when artificial nutrients are introduced in the water.



Hydroponics: Pros

- Increased rate of growth (25%) and production (up to 30%)
- Reduces waste and production from soil runoff
- Decreased need for herbicides

Hydroponics: Cons

- High in cost
- Long prep time
- Needs a lot of specific attention
- Fragile environment
- A lot of **fresh water** is needed

GMOs

- Definition- Genetically modified organisms whose genetic material has been altered using genetic engineering techniques.



- "HARDER. BETTER. FASTER. STRONGER."

GMOs: Pros

- Higher yields
- Better quality/taste
- Healthier animals
- Vitamins and minerals (added)
- Look better
- Subsidized
- Better resistant to weeds

GM0s: Cons

- Health risk in humans (i.e.: cancer, food allergies, organ damage)
- Environmental risks
- No long-term testing
- Higher runoff
- Higher chemical intensities
- Expensive
- May infringe on religious beliefs: An individual practicing a religion forbidding the consumption of pork may unknowingly eat fresh produce contain a gene from a pig.

Runoff

- Runoff: “Water pollution: agricultural or industrial waste products that are carried by rainfall and melting snow into surface waters”



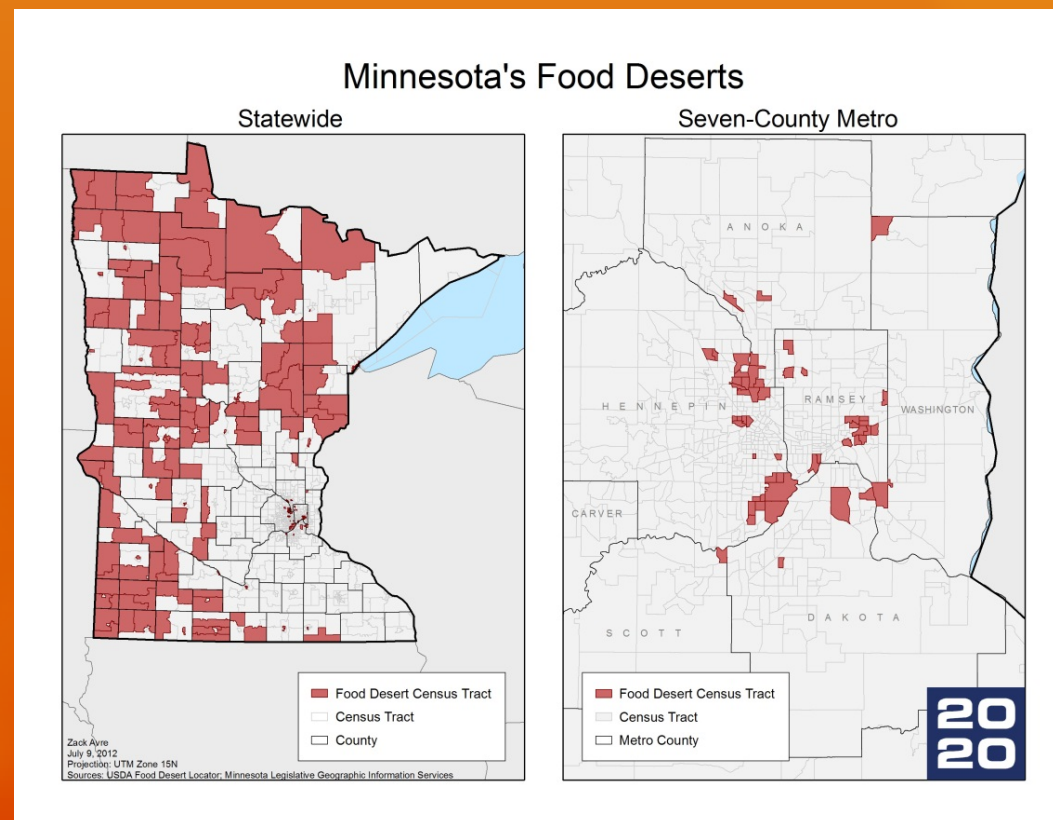


Runoff: Cons

- Erosion
- Detrimental to fragile ecosystems of nearby waterways
- Large expenses
- Compilation of chemical compounds (fertilizers, pesticides, herbicides)
- Farmers are not under the jurisdiction of the Clean Water Act

Food Distribution

- Food Desert: Populated area with no access to fresh produce
- Food Deserts are caused when large corporations hold monopoly over an area and cause local businesses to shut down
- The University of Minnesota campus is a large Food Desert, caused by the Monopoly of the Target Corporation



Farmers' Market

- Farmers' Market: a food market at which local farmers sell fruit and vegetables and often meat, cheese, and bakery produce directly to consumers.



SNAP

- SNAP (Supplemental Nutrition Assistance Program): Provides nutritional assistance to eligible, low-income individuals and families, and provides economics opportunities to the community
- The Food and Nutrition Service works with State agencies, nutrition educators, and neighborhood and faith-based organizations to ensure that those eligible for nutrition assistance can make informed decisions.

