

The Million Dollar American Lawn

- Turfgrass lawns are a million dollar business
- Grass is natural, but perfect turfgrass lawns require mechanical equipment and chemicals that are toxic to humans, pets, and ecosystems



A Short History of Lawns

- Turf grass was **domesticated for livestock grazing**, so they do better when clipped frequently (ie. mowed)
- Turf grass seeds were brought to the Americas as part of the **Columbian exchange**
- The modern lawn emerged after World War II
 - Automobiles contributed to the **growth of suburbs**, where people have more lawn space
 - **Chemical inputs** became widely available to the public

The Chemical Revolution

- Early lawn chemicals were crude and dangerous
- DDT replaced early chemicals – seemed safer
 - DDT was banned in 1972 because it is so toxic for marine and avian species
- Subsequent chemicals are also known to be toxic for humans and ecosystems
- Nutrients from fertilizers cause **eutrophication**
 - Algae consume the nutrients and greatly increase in number (algal blooms), leading to deoxygenated water and ecosystem collapse
- Chemical inputs are necessary when lawns are **monoculture** (a single cultivated species)
 - **Agrodiversity** can help replenish nutrients or fill in the gaps if one species does not thrive



CBS NEWS July 25, 2014, 7:08 AM

Lawn chemicals can stay in body for "years, even decades"

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The pesticides you use on your lawn to get rid of weeds and insects are part of a \$10 billion-a-year industry. But some doctors are becoming more concerned about your exposure to those chemicals, CBS News correspondent Vinita Nair reports.

Joe Holland has been in the lawn care business for 30 years. His work requires him to be around a variety of chemicals, which is why he always tells his workers to take precautions.

CURRENT EVENTS May 8, 2013 12:30 PM ET

Dogs Absorb Lawn Chemicals

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Dogs are ingesting, inhaling and otherwise being exposed to garden and lawn chemicals that have been associated with bladder cancer.



Lawn Chemicals Linked to 2 Types of Cancer in Dogs

By Paul Ebeling on May 12, 2016 - 47 Comments



Lawn Chemicals Feed Health, Environmental Problems

April 20, 2016



The Explosion of Lawns

- Lawns cover a large portion of the U.S. and are increasingly common around the world
 - Lawns are the largest irrigated crop in the U.S.
- Negative impacts:
 - Toxins and costs of chemicals (fertilizer)
 - Demand for fresh water (irrigation)
- Positive impacts:
 - Absorption of carbon dioxide from the atmosphere (carbon sink)
 - Reduced **urban heat island effect**



Risk and Chemical Decision-Making

- Why do people continue practices of lawn care that are known to be harmful to human and environmental health?
- If keeping perfect monoculture lawns is known to be a hazard, people must be calculating **risks** associated with lawn care activities
- **Risk perception** may be impeded by lack of information or risk perception biases
- A national survey suggests that people who use chemicals are more aware of the dangers than people who do not
 - *More information will not change the behavior*

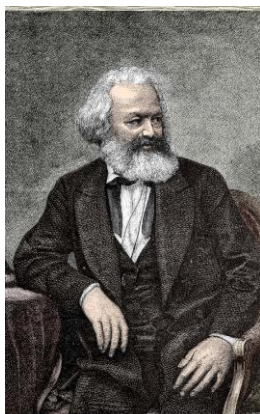
What Influences Lawn Decisions?

- Well-maintained lawns are a **sign of status, responsibility, and good citizenship**
- People keep good lawns for the social benefits – they do not want to let their neighbors down
 - But doesn't using chemicals that are harmful to humans, pets, and the environment hurt neighbors?



Social pressure, not social-ists?

- “If you don’t cut twice a week you are a communist! It’s like, oh man!”



What does this image tell us about lawns and lawn care?

What does it tell us about society?



What does this image tell us about lawn and lawn care?

What does it tell us about society?



How do these images connect to our readings?
How has lawn care and social pressures changed?

