

Just grass in your lawn?



How Can Urban Agriculture Support Our Water?

Synthetic Fertilizer can harm water bodies

Synthetic Fertilizer's are more susceptible to leaching and runoff. This runoff can over-stimulate growth of aquatic plants and algae, clogging water intakes, reduce oxygen levels, block light to deeper waters, can result in fish kills, lead to decrease in animal and plant diversity, and can even "kill" a lake by depriving it of oxygen.



Organic Fertilizer Less Likely to Leach

Organic Fertilizers release nutrients only when soil is warm and moist and rely on soil organisms to release nutrients over time. Organic Fertilizer's slower nutrient release makes it less likely to leach into ground water or damage surface water through runoff - keeping our lake water clean.



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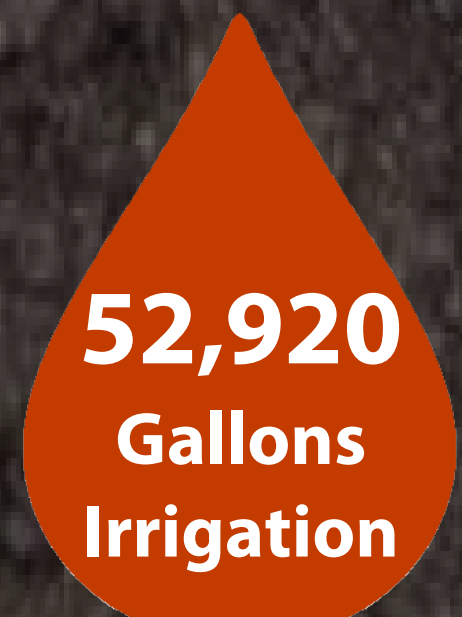
Typical 1/2 Acre Lawn

Synthetic Fertilizer
Lawn Chemicals



A Year By The Numbers:

Water budget:
Ave summer rainfall in Maplewood:
3.7" per month = 50,205 gallons per 1/2 acre lot
Lawn water need:
5" per month = 67,845 gallons per month
3-month irrigation needed:
(MN Extension)



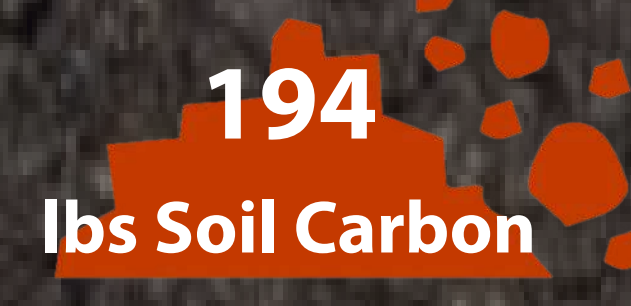
Fertilizer Use:
65 lbs per 1/2 acre lot
(MN Extension)



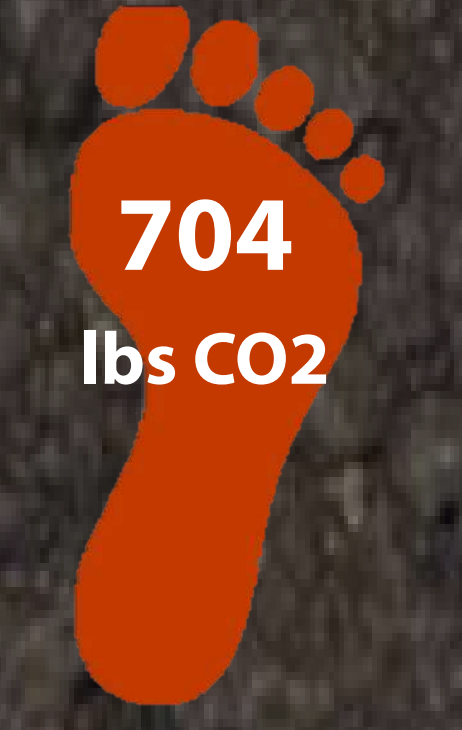
Pesticides:
3.25 pounds per 1/2 acre
...240% the amount used by industrial ag land.
(National Research Council)



Soil Carbon:
711 pounds CO2 Sequestration per 1/2 acre



Greenhouse Gas Emissions:
Mowing: 469 pounds of CO2
Fertilizers: 98 pounds CO2
Pesticides: 52 pounds CO2
Irrigation: 85 pounds CO2
Total: 704 pounds CO2 per 1/2 acre



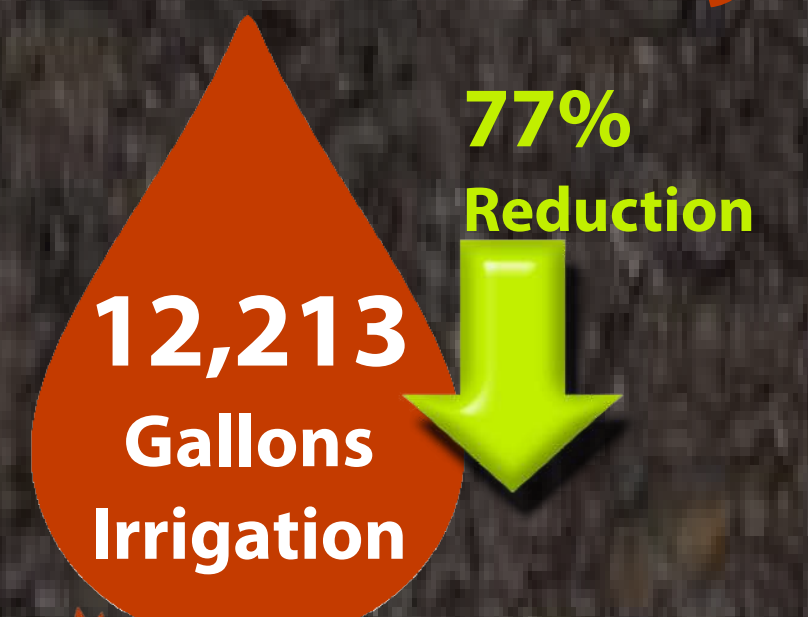
1/2 Acre Urban Agriculture Yard

Organic Gardens
Backyard Chickens

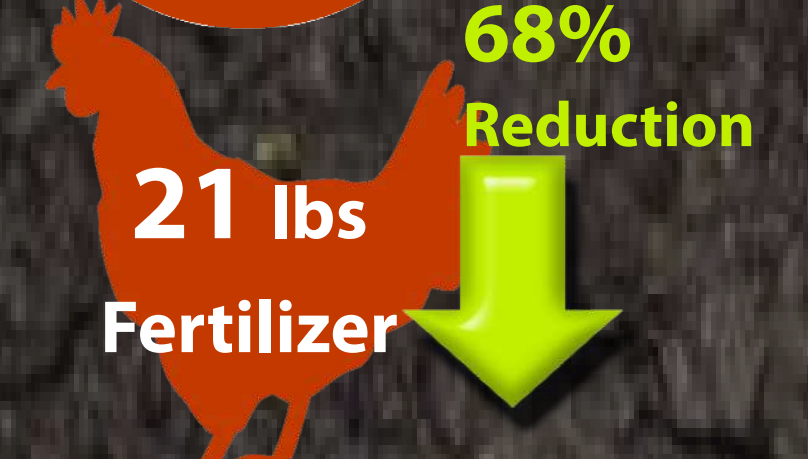


A Year By The Numbers:

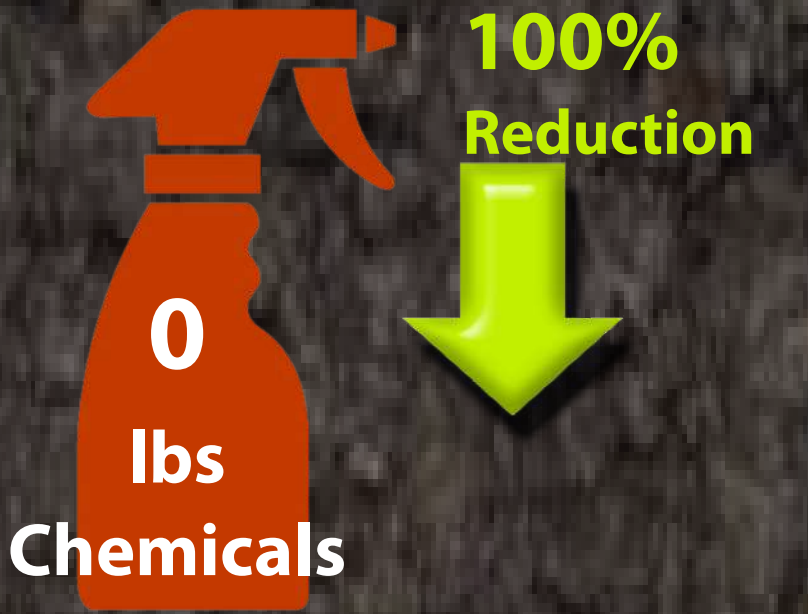
Water budget:
Ave summer rainfall in Maplewood:
3.7" per month = 50,205 gallons per 1/2 acre lot
Urban Ag water need:
4" per month = 54,276 gallons per month
3-month irrigation needed:
(Colorado State University)



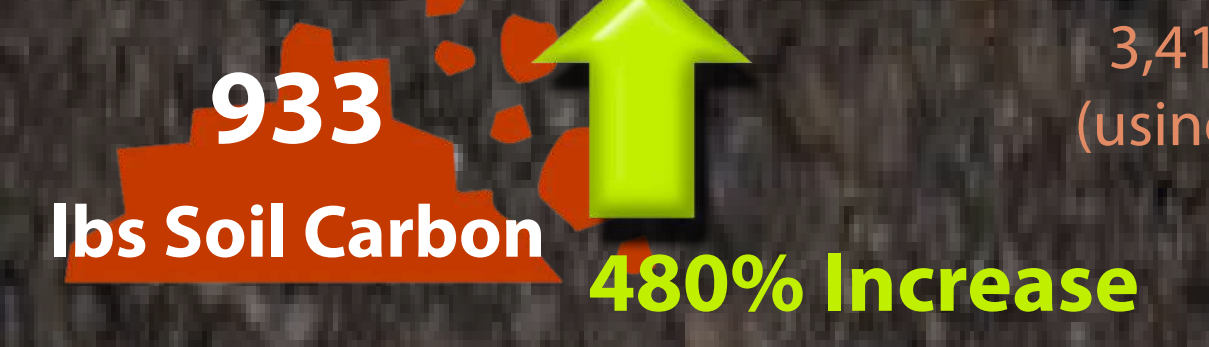
Fertilizer Use:
21 lbs per 1/2 acre lot
(Colorado State University)



Pesticides:
0 pounds per 1/2 acre
(With companion planting techniques)



Soil Carbon:
3,416 pounds CO2 Sequestration per 1/2 acre
(using organic permaculture techniques with soil organics increasing at 1% per year)
(Soil Carbon Coalition)



Greenhouse Gas Emissions:
Mowing: 0 pounds of CO2
Fertilizers: 32 pounds CO2
Pesticides: 0 pounds CO2
Irrigation: 20 pounds CO2
Total: 52 pounds CO2 per 1/2 acre

