The Case to Kill Your Lawn

GROW PITTSBURGH

Intro to Grow Pittsburgh

Our Mission

Our mission is to teach people how to grow food and promote the benefits gardens bring to our neighborhoods.

Our Vision

We envision the day when everyone in our city and region grows and eats fresh, local and healthy food.



Our Work

- We teach people how to grow food through school garden curriculum, teacher trainings, workforce development for youth, adult workshops, and other resources.
- We grow food for our community through our urban farm sites, providing affordable chemical-free fresh fruits and vegetables at our farm stands and through donations to free food distributions.
- And we build and support gardens for PreK-12 schools and communities throughout Allegheny County.



Land & Labor Acknowledgement

Grow Pittsburgh recognizes that we occupy and carry out our activities on the unceded, ancestral land of many Indigenous peoples. Of these, the principal historic caretakers of this region have always been the Onondagawa, known popularly as the Seneca Nation, who were members of the six-nation Haudenosaunee (hoe-dee-no-SHOW-nee) Confederacy (The Iroquois). The Seneca here in the western Pennsylvania region also shared this territory with the Shawnee and the Lenape (also known as Delaware). As recently as the 1960s, the last remaining Seneca reservation in Pennsylvania, The Cornplanter Grant on the Allegheny River in Warren County, and nearly one-third of the Seneca's tribal lands across our northern border in western New York State were taken by the U.S. government to build the Kinzua Dam northeast of Pittsburgh.

We also acknowledge the extraction of life energy and labor forced upon people of African descent and Indigenous peoples and the autonomy denied to them. This includes redlining and other forms of institutional racism that have displaced and undervalued Black and Brown residents of Allegheny County and resulted in many of the "vacant" land plots where we now grow food.

Our regenerative and sustainable growing practices (including cover cropping, composting, mulching, soil remediation, and pollinator habitat restoration) are part of our efforts to respect the earth, cultivate healing, and celebrate life through growing and sharing food. As a land-based organization with urban farms in Braddock, North Point Breeze, and Wilkinsburg, as well as community and school gardens throughout the region, it is important for us to acknowledge the communities that have come before us.



Land & Labor Acknowledgement (cont.)

We uplift these communities purposefully in our work, but we are not the only ones doing this. We support and invite you to get involved with these good people and their important community work:

- •Council of Three Rivers American Indian Center
- •Farmer Girl Eb
- •Grounded Strategies
- •Black Urban Gardeners and Farmers Cooperative of Pittsburgh (BUGS)
- •Operation Better Block / Junior Green Corps
- •Sankofa Village Community Farm
- •Soil Sisters Plant Nursery

We believe it's important to acknowledge the ways that colonialism and white supremacy have shaped land use, access to resources, and labor and to actively work towards a just, equitable, and inclusive future. **How will you join in this work?**



Our Work





Farm Education & Production

- Grows and distributes fresh produce to food-insecure communities
- Offers paid workforce development training for youth and young adults
- Grows seedlings for backyard, school, and community gardeners



School Gardens

- 43 school gardens and 13 early childhood centers across Allegheny County
- 2-year educator training curriculum that helps school staff become garden experts
- Over 25,000 students have access to a Grow Pittsburgh school garden



Community Projects

- Has built and supported over 130 gardens across the county
- Annual mini-grants for established community gardens
- 8,000+ seed packets distributed county-wide
- TRALI program protects established gardens in perpetuity
- Community Compost School creates local experts

Garden Resource Center (GRC)

- 349 active members in 2022
- Distributed 73 tons of organic compost, 80 tons of organic topsoil, and 61 tons of organic mulch in 2022
- Tested 227 soil samples for lead contamination









The Case to Kill Your Lawn

The Why



<u>Native/Indigenous</u>: a species whose presence in a region is the result of only local natural evolution during history

<u>Naturalized</u>: an introduced species that is capable of reproducing and thriving in a new location but does not necessarily threaten native species.

<u>Invasive</u>: an introduced species that is capable of reproducing and thriving in a new location to the extent that it threatens or destroys native species.







Many popular lawn mixes:



- Are not native to America
- Need high levels of fertilizers & pesticides to thrive
- Require supplemental watering
- Offer no food or habitat for local pollinators





Fertilizer & Herbicides

Americans sprinkle millions of pounds of nitrogen fertilizers sprinkled into lawns

- Massive carbon emissions
- Harmful runoff into lakes and streams

PESTICIDE MOVEMENT IN THE ENVIRONMENT

Pesticides have the potential to move after they are first applied. Where they go and how long they may last can depend on many factors. The combination of the following factors influences pesticide movement.

Increasing temperature, surlight, and rain may increase pesticide breakdown. This and other weather conditions PLANTS affect the potential for pesticide movement. Some pesticides are not easily taken up by ENVIRONMENTAL CONDITIONS plants, and some plant types take up pesticides more than others. AM DROPLET SIZE SMALL DOOPLETS DESTICIDE ABBY FURTHER BUT SSIPATE FASTER LARGE DROPLETS FALL FASTER BUT STRY ON TADDET BETTED NATURAL WATER SOIL If a particide does reach water, it may not Some soft hold onto pesticides more easily, or collect move as much as you think. Some peritoides woter so pesticides don't move as for Bocteria, fungi, hind tightly to sediment where they settle out. and other microbes vary across locations and solls. which can also affect pesticide breakdown. WATEP TABLE HEIGHT YPE OF ESTICIDE When the woter table is shallow, pesticides may SEDIMENT be more likely to reach it INDING TYPE WATER MOVEMENT MICROBIA! For more information about COMMENT CHEMISTRY pesticides or their movement in

the environment, contact us M-I

we use **The Environmental Protection** Agency estimates that about *a third* of all public water is used to water grass.

Water:

As much as

- Lawns compete with farms in water scarce areas
- Mega droughts out West

inefficient watering methods and systems.

ASIE

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water

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irb vour water waste!



Emissions

- Gas mowers churn out 5% of the nation's toxic air pollution annually
- A consumer grade leaf blower releases more hydrocarbons than a pick-up truck or a sedan
- Lawn maintenance produces 4x more carbon than lawns absorb!





Human Time & Effort

- Damaged lawn (weeds, bare spots) 50% or more
- Too much work



Step 1 to a more eco-friendly & low-maintenance lawn:

Mow less!

Being a lazy lawnmower improves the diversity and abundance of bees, and longer grass blades improve overall soil moisture retention



Other changes you can make:

1) Upgrade your gas can

• Older cans can cause more spillage, and harmful emissions may be escaping from holes or the sprouts of these cans.

2) Mow in the evening

• During the day, ozone forms more easily. However, mowing the evening gives these chemicals time to disappear overnight, as they lack sunlight.

3) Reduce the amount of landscaping power tools you use

• Consider switching to electric tools

4) Start mowing later in the season!

• Give hibernating bugs a chance to thrive

Consider an Electric Mower





1=11

A typical 3.5 horsepower gas mower can emit the same amount of VOCs, NOx and CO - key precursors to ozone as 11 new cars.

OZONE

Saint Louis

PUBLIC HEALTH

EPA estimates that 17 million gallons of fuel are spilled each year while refueling mowers. That's more oil than the Exxon Valdez spill. This fuel evaporates, mixes with sunlight and creates ozone.

GO ELECTRIC - LET IT GROW - MOW IN THE EVENING - UPGRADE YOUR GAS CAN

The Case to Kill Your Lawn

The How

Herbicides: Glyphosate (Not Recommended)

Pros:

- Works Quickly (2 weeks)
- Breaks down quickly in your soil

Cons:

- Could hurt other plants
- May need repeated treatments
- Potentially harmful to humans and animals

Process:

- 1. Needs to be applied to actively growing glass
- 2. Spray as directed
- 3. Do not water for 48 hours or disturb for 7 days
- 4. Mow grass at lowest setting
- 5. Rake up clippings and remove



Herbicides: Horticultural Vinegar

Pros:

• Organic

Cons:

- Indiscriminate Killer
- Doesn't break down quickly
- Adds salinity to soil
- Doesn't touch roots (only kills what it directly touches)

Process:

- 1. Spray as directed
- 2. Do not water for 48 hours or disturb for 7 days
- 3. Mow grass at lowest setting
- 4. Rake up clippings and remove



Black Plastic

- **Pros:**
 - Safe, Simple
- Cons:
- Unsightly
- Can take multiple months Process:
 - 1. Mow as low as possible
 - 2. Cover with plastic or tarps
 - 3. Weigh down with bricks, sand bags, etc.
 - 4. Leave in place for at least 2 months

Solarization

Pros:

- Safe, Simple
- Progress is visible

Cons:

- Can take multiple months
- Requires sunlight

Process:

- 1. Mow as low as possible
- 2. Rake the clippings away
- 3. Soak the lawn
- 4. Cover with plastic or tarps
- 5. Weigh down with bricks, sand bags, etc.
- 6. Leave in place for at least 2 months





Rye-vetch cover crop two weeks after roller-crimping and different tarp treatments in June in New Hampshire.



Removing Sod Pros:

- Safe, Simple
- Quick

Cons:

- Can be expensive (machine rental or landscaping company)
- Physical labor

Process: 1) Cut & Remove!

Layering

Pros:

- Adds nutrients into the soil
- Can be done on a budget
- No need for chemicals or grass removal

Cons:

- Can increase landscape height
- Can take a few months

Process:

- 1. Cut your grass as low as possible
- 2. Cover with multiple layers of cardboard, newspaper, etc.
- 3. Add a few inches of soil or mulch on top



The Case to Kill Your Lawn

The What Next

Sand, Silt, and Clay



Garden & Plant Considerations

- Soil
 - **Rubble & Contaminants**
 - Slope & Drainage
 - Sun
 - Access
 - Aesthetics
 - Present Species ٠
 - Season •
 - Expense
 - Time of year for planting ٠
- Drainage & sun needs
 Spread/Aggression
 Bloom Time

- Pests •
- Pollination CapabilitiesHeight



Pests

Varmints In General

- Resistant Varieties
- Repels All/Liquid Fence

Ticks

- 3 ft. wood chip barrier
- Low-grow near pet/play areas

Pest Bugs

- Neem/Organic Pesticides
- Beneficial Insect Releases
 - Nature's Good Guys
 - Arbico Organics



Soil Testing

- Necessary for new in-ground gardens & every 3-5 years in established gardens
- Can test for heavy metal levels & nutrients
- Send completed tests to UMass, or Penn State Extension
- Allegheny County offers free lead testing



Native Plants

- Adapted for Local Climate and Conditions
 - Low Maintenance
- Maintaining Native Biodiversity
 - Supports Birds & Pollinators





Considerations

Check your township rules:

- 6" rule
- Planted lawns vs. Meadows

Check local No-Lawn Programs:

- DCNR may reimburse for tree planting & native lawn establishment
- Must convert more than ¹/₄ acre (between you and neighbors)
- Contact

PA-NRWoods and Meadowns@pa.gov



The Case to Kill Your Lawn

The What Next: Options



Growing Food

Comparing Garden Types

IN GROUND

Pros:

- Low cost
- Soil temp & moisture are stable
- Easiest for irrigation

Cons:

- Dependent on quality of existing soil
- Edging can be poorly defined
- Slope & drainage can become an issue

RAISED BED

Pros:

- Controlled soil quality
- Less bending and kneeling
- Fewer weeds
- Better drainage
- Aesthetics

Cons:

- Expensive
- Soil temp is variable
- Requires soil replenishment

CONTAINER

Pros:

- Less space
- Allows you to move/adjust your garden
- Can overwinter some plants
- Less weeds!

Cons:

- Requires most attention
- Watering is tricky
- Less healthy plants
- New soil annually

Low-Maintenance Ground Covers (under 6")





Eco Grass or No Mow Grass

- Normally a mix of turf grass and fine fescue
- Requires much less mowing, fertilization, and watering
- Can be choked out by invasive turf grasses

Clover Mixes:

- Potentially invasive, but better than turfgrass
- Fixes Nitrogen in soil
- Attracts pollinators (potential to smoosh)
- Resilient





Creeping Sedum

- 3-5"
- Drought Tolerant
- Can handle foot traffic
- Can't handle clay soil

Green and Gold

- 1-2"
- Fast growing/Mat-Forming
- Drought Tolerant
- Can handle mild foot traffic
- Mild Shade



3-Leaved Stonecrop (Below)

- 1-5"
- Easy-Care
- White flowers in spring
- Attracts butterflies
- Resistant to deer & rabbits





Creeping Thyme

- 1-2" tall
- Colorful flowers
- Fragrant
- Drought deterrent
- Attracts butterflies
- No clay soil

Virginia Strawberry

- 1-5"
- Spreads quickly with runners
- Can handle wetness and low sun

Partridge Berry

- 0.5-2"
- Can handle drought, but not soggy soil
- Prefers shade
- Deer/Rabbit resistant



Leadwort

- 6-10" tall
- Colorful flowers
- Winter Color
- Mat Forming/Fast-Growing
- Plant Early
- Hardy!





Low-Maintenance Landscaping Options: 12" and Up

Sedges

- Up to 12" tall
- No mow grass
- Can tolerate heavy shade & wet soil
- Can be alternated with taller flowers to create intrigue

Bunchberry Dogwood

- Up to 10" tall
- Beautiful ground cover
- Cannot tolerate foot traffic
- Can be tricky to establish

Creeping Phlox

- Up to 12"
- Blooms in late summer
- Tolerates deer and rabbits
- Can handle foot traffic



Virginia Spiderwort

- Up to 36" tall
- Can handle shade, clay soil, black walnuts
- Needs drainage
- Deer & Rabbit resistant

Blue Mistflower

- Up to 18"
- Attracts bees and butterflies
- Late season blooms
- Can handle clay
- Aggressive spreader



Nodding Onion

- Up to 18" tall
- Attracts butterflies
- Deer and rabbit resistant
- Can tolerate drought and black walnut

Lyre-Leaved Sage

- Up to 24"
- Great for soggy areas
- Can handle clay soil & deer
- Attracts butterflies









Resources

- Wild Ones Garden Designs
- *The Living Landscape* (Darke and Tallamy)
- **Prairie Up!** (Benjamin Vogt)
- Lawns to Meadows: Growing Regenerative Landscapes

(Owen Wormser)

Questions & Resources

Resources:

- Grow Pittsburgh Info Hub
- Garden Resource Center

Questions:

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