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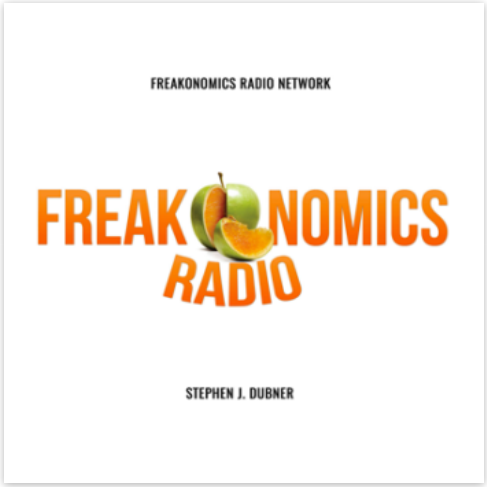

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EPISODE 289

How Stupid Is Our Obsession With Lawns?

Nearly 2 percent of America is grassy green. Sure, lawns are beautiful and useful and they smell great. But are the costs — financial, environmental and otherwise — worth the benefits?

00:00 27:59

May 31, 2017
By Stephen J. Dubner
Produced by Christopher Werth

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EPISODE TRANSCRIPT

Where I live, in the great northeast of the United States, spring has finally gone full-bloom and summer's right around the corner. When you get outside, it's beautiful. The trees, the flowers — and of course, the lawns! Who doesn't love a good lawn? It looks good, smells good, *feels* good. For a lot of people, a lawn is the perfect form of nature. Even though, let's be honest, the lawns we like don't actually occur in nature. Even though the process of producing such a lawn is full of the most *un*natural activity. Even though this unnatural slice of nature requires so many inputs — the water, the fertilizer, the weed-killers, the mowers and trimmers and the leaf-blowers, the fuel to power all this machinery, the fuel to power the trucks to transport the people who run the machinery … all in pursuit of the perfect lawn.

* * *

> *Stephen J. DUBNER: Give me — [as] briefly as you can — a history of the lawn.*
>
> *Ted STEINBERG: If you go look at the Oxford English Dictionary and try to find the word "lawn," you'll see that it dates from the 16th century from Old English for "an open space" or what was called a "glade."*

Ted Steinberg is a history and law professor at **Case Western Reserve**.

> *STEINBERG: I'm the author of several books including American Green: The Obsessive Quest for the Perfect Lawn. These lawns that existed back in 16th, 17th, 18th-century England were typically found on estates.*
>
> *DUBNER: Now talk about how America got into lawns and the degree to which they upped the game.*
>
> *STEINBERG: Lawns go way back in American history. Washington and Jefferson, of course, had lawns. Nevertheless, even well into the 20th century, people, especially working-class people, were more concerned with, how shall I say, the "use value" of their yards as opposed to "exchange value" of the landscape. What I mean by that is working-class people would raise small livestock in their yards, or vegetables. That said, the really big expansion in the "lawnscape" — if I can call it that — happened after the second World War with suburbanization.*
>
> *Clip from a 1950s newsreel: This is Levittown, one of the most remarkable housing developments ever conceived.*
>
> *STEINBERG: Between 1947 and 1951 or 1952 or so, the Levitts mass produced some 17,000 homes on what had been a bunch of potato fields on Long Island in New York. Every one of those 17,000 homes had a lawn surrounding it. If you look back at the deeds for Levittown and other places, you'll find that there are covenants in them requiring the owner of [a] new Levittown home to mow their*

> *lawn, their yard, once a week.*
>
> *Clip from a 1950s newsreel: Yes, that old potato patch has come to a good end.*

An aerial view of Levittown on Long Island, on Feb. 25, 1950. (Photo: AP Photo)

Today, Americans spend roughly $60 billion a year in what's known as the turfgrass industry. This covers lawn supplies, lawn services and so on. That figure includes sports fields, commercial properties and private lawns; lawns account for two-thirds of the total square footage. How much square footage is that?

> *Cristina MILESI: That's about 40.5 million acres of turf.*

That's Cristina Milesi.

> *MILESI: I am a scientist by training, and I worked for **NASA** for over 10 years.*

Today Milesi in an independent environmental scientist. Forty-odd million acres of turf — for reference, that's bigger than Iowa. Milesi hadn't set out to measure the size of America's lawn. In fact, quite the opposite.

> *MILESI: I was working to map the amount of paved area in the United States.*

Mapping out paved areas included using satellite data that measured nighttime light emissions.

> *MILESI: Light emissions that come from, basically, turning on street lights at night.*

She and her team also used aerial photography — which, of course, showed more than just paved areas.

> *MILESI: We also took measurements of how much lawn area there was and how many shrubs — shrub area and tree area.*

And that's how they came up with 40.5 million acres of turf. Which is a bit less than 2 percent of the United States. Paved areas, meanwhile, make up just 1.3 percent. The sheer volume of grass got Milesi thinking …

> *MILESI: How are lawns functioning as an ecosystem? We use water, but also fertilizer and pesticides. Then we use lawnmowers and leaf blowers. But they are plants, so they photosynthesize. They absorb carbon. What's the balance between what we put in and what we put out? I decided this would be a worthwhile question to ask.*

The specific question being whether lawns are, from a carbon perspective, net-positive or net-negative. She began by trying to tally how much water people use on their lawns. The standard recommendation, especially where rainfall doesn't do the job, is one inch of water per week.

> *MILESI: I came up to some numbers that I could not believe.*

What are these unbelievable numbers? The total was 20 *trillion* gallons per year. On lawn-watering. You want a little context for that number? Consider we use just *30* trillion gallons to irrigate all our crops. Next Milesi calculated how much carbon the turfgrass stores in the soil.

> *MILESI: Then I subtracted from it the amount of carbon that was associated with nitrogen fertilization and the amount of carbon that was emitted by using a typical lawn mower.*

And: what'd she learn?

> *MILESI: I learned that the turf would become a sink of carbon. This is not surprising. A plant, given plenty of attention, photosynthesizes carbon. But it comes at the cost of producing the fertilizer, mowing the grass and all the industry that comes around it.*

So even with those costs included, lawns look pretty good from a carbon perspective. On the other hand, Milesi's model didn't include inputs like the carbon emissions from the trucks that lawn crews drive, or the original manufacture of all that lawn-care equipment. Nor did it include the energy used to deliver water to households and clean it for human consumption.

> *MILESI: We should not forget that this is drinking water. I did not account for those costs.*

And, as just about any economist will tell you, water is often woefully underpriced — which can

lead to overuse. Especially if you're growing a grass species that wasn't meant to grow where you live.

> *STEINBERG: Kentucky bluegrass or creeping bentgrass evolved in the cool moist climes of northern Europe.*

Ted Steinberg again.

> *STEINBERG: It's not all that easy to grow them here in the continental United States, and especially in arid parts of North America. If you go to California, you'll find — still — lawns with cool-season turfgrass. Every square foot of that turfgrass requires 28 gallons of water, roughly speaking, per year. Every square foot. But that's for the coastal environment. If you move inland to a more arid part of California, that number increases to 37 gallons of water.*
>
> *Eric GARCETTI: We waste so much water.*

That's Eric Garcetti.

> *GARCETTI: I'm the mayor of **the city of Los Angeles**.*

We spoke with Garcetti last year, when California was deep in drought. In Los Angeles, lawns and landscaping use a whopping 50 percent of Los Angeles's water — and the drought had doubled what the city was paying to import water. So Garcetti used incentives to change behavior. The city paid residents to install rain barrels to capture water for their lawns; it paid them to replace their lawns with drought-tolerant plants.

> *GARCETTI: I said, "If you have a lawn and you're using it, great. Keep it and pay for the water to water it. But if you're not, let us pay you to switch that out to beautiful, flowering, green plants that use a lot less water." We're able to do that*

> *with over 50 million square feet of lawn just in the last couple years. We reduced our water usage by 19 percent without having to fine anybody, without having to crack down with the water police, but by inspiring people through public education and rebates, giving them free cisterns, changing out their toilets, all those sorts of things.*

What works in California won't necessarily work elsewhere. And California is more aggressive than most with environmental regulations. For instance: it's currently pushing to lower emissions on lawn-care equipment, which tends to have particularly dirty little engines. They're also really noisy.

> *Erica WALKER: If you hear the sound of a leaf blower, it has these really interesting low-frequency and high-frequency components.*

That's Erica Walker. She just got her Ph.D. in Environmental Health at **Harvard**.

> *WALKER: Not only is it traveling inside of your walls, but it has this high-pitched hum that's really annoying.*

In Boston, Walker helped compile a citywide noise report, which mapped, among other things, "leaf-blower annoyance levels." A lot of places have banned leaf-blowers or restricted their hours — especially the noisier, gas-powered models. Walker was interested in the relationship between noise and public health in a city like Boston.

> *WALKER: Sleep disturbance is the direct relationship between sounds and negative health.*

The World Health Organization suggests that daytime noise levels shouldn't exceed 55 decibels. Walker wondered how leaf-blowers registered, even if you weren't the one blowing the leaves.

> *WALKER: We see that even when you move 400 feet away from the point of operation, you're still getting sound levels in excess of what the World Health Organization recommends. But then we also learned that these leaf blowers have a strong contribution from the lower frequencies. It has an ability to travel very long distances and penetrate through the walls. It's really hard to mitigate. We see in the epidemiological literature that low-frequency sound is creating negative health effects above and beyond high-frequency sound.*

So what've we learned so far? We have a lot of lawn in America; and our pursuit of the perfect lawn is noisy and resource- and labor-intensive. They do, however, serve as carbon sinks — and, of course, they're beautiful, at least many people think so. And useful — for playing, for picnicking, for relaxing. Coming up on *Freakonomics Radio*: We love lawns so much we even plant them beside our highways!

> *Alan TURNER: A standard cloverleaf takes up about 16 acres of lawn.*

And: if you don't want to have a lawn in your yard, what can you have?

> *Jim KOVALESKI: I think the best year I had it was like 2,000 pounds of sweet potatoes.*

* * *

Why did we make this episode, about the costs and benefits of lawns? Mostly because of you. Occasionally we ask *Freakonomics Radio* listeners for story ideas — especially for what we colloquially call our "Stupid Stuff" series — that is, things we do or use or submit to that are, on some level, kind of stupid. Well, last time we asked for your "Stupid Stuff" ideas, quite a few of them concerned lawns. Pat Allen from Trinity, Florida wrote: "What is up with the America addiction to lawns?" John Faulkner of Arlington, Virginia complained about noisy, smelly lawnmowers. And then there was Alan Turner.

> *TURNER: I'm from New Castle, Delaware. My formal training, my initial career, was in landscape architecture. Right now I'm looking at the highway median at the rest stop on I-95 just south of Wilmington, Delaware.*

Turner's pet peeve is what's *in* that highway median: grass.

> *TURNER: It looks like this grass gets mowed three times in the summer, let's say.*

It's not just in highway medians, but also those cloverleaf interchanges.

> *TURNER: A standard cloverleaf takes up about 16 acres of lawn.*

Turner understands *why* these are all grass.

> *TURNER: Grass is cheap. Grass is the cheapest ground cover you can install. The problem with grass is that it's also the most expensive ground cover to maintain.*

And it has to be maintained — mowed, especially — for safety, for good sightlines. So you've got all that mowing. And all those traffic delays when the mowers are out there in the medians. Turner's idea is to plant highway medians with plants that don't require maintenance like grass does.

> *TURNER: The seed might cost slightly more, but that's the only difference. Then you get a permanent ground cover that needs no mowing.*

> *Doug HECOX: I can honestly say this is the first time I've ever been asked to talk to anybody about roadside vegetation management.*

That's Doug Hecox, with the **Federal Highway Administration**. It advises states on how to maintain their highway grass.

> *HECOX: Nobody asks us about plants. They ask us about traffic and potholes. I think, conservatively, we've got about 17 million acres of roadside vegetation.*

Roadside grass dates back to the early days of auto travel.

> *HECOX: Having a grassy area near the road in case somebody broke down or wanted to rest after this ordeal of driving around … It was a very tempting option. That's what began [it]. As time went on, grass became an expectation, because everywhere you went, there it was. When you didn't have it, people noticed it. That was the prevailing attitude."We want these roads to look inviting. We want them to look like your front yard."*

That began to change as early as the 1960s, as state and local governments realized how many resources went toward maintaining all that grass.

> *HECOX: In the 70s and 80s, we began to realize that water was really a big issue. States dealing with tight budgets began to plant native grasses, things that were a little bit more water-efficient.*

And: grasses that didn't require as much mowing. But still: how about Alan Turner's idea to get rid of grass entirely in favor of something that requires no mowing?

> *HECOX: He does have a point. However, I'm also not willing to say that states haven't already considered that. There may be reasons why they have to plant what they have. Budgets are so tight at the state D.O.T. level.*

Okay, so what about not replanting but also just not mowing the grass at all?

> *HECOX: If you were to let something just go wild or return to nature, that sounds great. It sounds easy. It sounds cheap, and it is. It's not necessarily the best choice, though. That's where the invasive species thrive. In the south, you've got kudzu that grows all over the place. You've got other invasive species that pop up and start to proliferate, invading local neighborhood lawns or farmers' crops. It can get out of control.*
>
> *Sara WIGGINTON: I totally understand what he's saying and that's the assumption.*

That's **Sara Wigginton**.

> *WIGGINTON: But we have to look and see if what we assume is really what's going to happen. That's basically what we decided to do.*

She's an ecologist working on her Ph.D. at the **University of Rhode Island**.

> *WIGGINTON: My ecological research focuses on finding creative solutions to human-caused environmental issues.*

She and her colleagues had a question about invasive species.

> *WIGGINTON: The question that we were trying to answer was if invasive species actually do proliferate in roadside areas that are taken out of the regular mowing management strategies.*

They took advantage of a sort of natural experiment in Rhode Island. The **Department of Transportation** typically mows its roadsides anywhere from three to ten times a year. But over the

past decade, it decided to significantly reduce mowing in some areas and eliminate it entirely in others.

> *WIGGINTON: We classify that as passive restoration because you're just taking it out of the circulation and then letting it go, letting succession take course.*

This allowed Wigginton and her colleagues to compare the number of invasive plant species in the mowed areas versus the unmowed, which had begun to grow wild. They also looked at young forests nearby, which had never been mowed. How did they collect those data?

> *WIGGINTON: It's not super glamorous. We basically lay out really long tape using compasses to make straight angles. Then, in a very time consuming process, we document every single species that we see in these subplots.*

What'd they find?

> *WIGGINTON: We found that invasive species are not proliferating significantly in these areas that are taken out of the traditional mowing scheme. They have the same number of invasives as both the young forests and the traditionally mowed areas. I would advise that state D.O.T.s move as much of their land as is reasonable to a reduced, low, or no-mow management scheme.*
>
> *STEINBERG: The easiest thing to do is to elect to have what I call a low-maintenance lawn.*

[MUSIC: Jetty Rae, "Queen of the Universe" (from *Can't Curse the Free*)]

Ted Steinberg again. He's talking about personal lawns now, not highway medians.

> *STEINBERG: Overtreatment is the single biggest problem that we have here in the United States with respect to lawn care. Right away, scale back on the chemical*

applications. You can get away with three applications of fertilizer per season. People also need to actually learn a little bit about the ecology of their yard. To do it right, you should get a soil test. Not a big deal. Leave the clippings on the lawn, for God's sakes. Don't put them out on the curb because the clippings break down and they return nutrients to the soil. I would argue, consider stopping the irrigation. Brown's not so bad.

DUBNER: I think you just lost a lot of our lawn-loving audience right there.

STEINBERG: That's too bad.

DUBNER: I'm not saying I disagree with you. I'm just saying that [when] people think of a lawn, brown is death. Brown is the enemy. Brown is not a lawn.

STEINBERG: The next time your lawn — if you're worried about this — turns brown, go out there, get down on your hands and knees and look at the grass. It's not dead. If you have a horrible drought, okay, I get it. But if it's not, when it appears to be brown, it's actually dormant. You'll see a little bit of green where the blade meets the soil. The individual plants, most of them, are still alive.

DUBNER: Ted, even you would have to admit that if you got your way, and if America suddenly woke up and said, "You know what? A low-maintenance lawn is good enough. It makes a lot of sense. Aesthetically, it's fine. Environmentally, it's probably better. Noise wise, et cetera, et cetera." But think of the jobs you're killing. This is a pretty substantial part of the labor market. Especially for low-education workers. Are you, Ted Steinberg, professor of history and law, willing to take the heat for killing off all those jobs?

> *STEINBERG: One of the big problems that we have in the United States today, maybe even in the world, is a lack of meaningful employment. But actually, it might not be as dire as you're implying here. You're still going to need people to mow the lawn. Maybe not as much. You don't really need to mow your lawn once a week. This could represent a savings, obviously, to consumers. It might not be the case that the floor is going to fall out of the job market because Ted Steinberg advocates for less in the way of perfection in lawn care.*

There's also the possibility of repurposing your yard entirely. Maybe a tennis court. Or an outdoor library. Or … taking a page from our past …

> *DUBNER:Hey, Jim. My name's Stephen. How are you?*
>
> *KOVALESKI: Good. Hi, Stephen. I'm Jim.*

Jim Kovaleski is a front-yard farmer in New Port Richey, Florida, a small city just outside Tampa.

> *DUBNER: Let me ask you this: You came up in lawn care. Did you enjoy that work?*
>
> *KOVALESKI: I might have thought I did. But now, every time I see a lawn trailer, I just shiver. It's just like terror. So I don't. No, I didn't. And I had to use so many chemicals, especially as I came to Florida because the lawns they got here, they've got kinds of grass that will not grow without pesticides and herbicides. You can't get them to do anything.*

But vegetables and fruit are a different story. He grows sweet potatoes and black-eyed peas; star fruit and avocados …

> *KOVALESKI: Lettuce and broccoli and cabbage and cauliflower.*

Kovaleski turned a front yard into productive farmland. He started with his own yard, then expanded to his mom's house, down the street.

> *KOVALESKI: Then my ex-wife bought a house right next door to her three years ago and offered me her front yard, which [has] full sun. It's allowed me to have a lot more growing space.*

He sells his produce at a local farmer's market.

> *KOVALESKI: The best year I had it was like 2,000 pounds of sweet potatoes. But theoretically, if I get better at this, this should produce like 15,000 pounds. I cannot believe how much value can come out of a small piece of land.*

Kovaleski gardens all winter in Florida, then drives his 1965 cherry-red pickup truck to Maine, where he does the same thing. In both places, he's best known for his salad mix.

> *KOVALESKI: I call it a greens mix. I plant very diverse. It could be a hundred different leafy greens. I'll go through the garden and mix it as I pick it. Then I wash it, spin it, put it in a bag and sell that. In Florida, I probably sell 2,000 to 2,500 of those bags a year. In Maine, it's pretty much the same mix. Maybe 1,000 up there. It's a shortish season and it's not as populated, so I make more of my money in Florida for sure.*
>
> *DUBNER: How much money do you make?*
>
> *KOVALESKI: You know, I'm doing really well. I do keep track because I want to show people how much you can make, because it's pretty much a cash business. I could hide stuff but I haven't. I've kept track for the last three years, or two years really good. First year that I kept good track was like 24 grand and then $27,000. I bet I'm on a pace of like $35,000 this year. I have very little expenses. So, you know, 35 grand's a lot of money. I don't know where to spend it, actually.*

> *DUBNER: Do you have any help or no, it's just you?*
>
> *KOVALESKI: No, I'm a fussbudget. I've learned that it's more stressful for me to try to work with other people and make things happen. More of my focus is to see how productive a small piece of land can be. I'm seeing it every year I'm getting better at it.*
>
> *DUBNER: Are there or were there any legal issues or ordinances you had to deal with to plant a garden in a front yard there?*
>
> *KOVALESKI: We're fortunate here because it is non-deed restricted community so there's not much for ordinances. There's nothing against the law to do this. Potentially, there could be some enforcement issues about height of vegetation, but [it] always looks so good that was never an issue.*
>
> *DUBNER: You sound like a pretty live-and-let-live kind of guy. But on the other hand, it sounds like you would be happy if you started a front yard garden revolution.*
>
> *KOVALESKI: I would. I wouldn't think I'd be one to lead something like that, but I've found that people follow things that work. I haven't done any promotion over this 10 years. But there's been a lot of press. I've been amazed at how people are longing for this. It's poised to take off. Potentially, we can put people back to work on the land.*

A farm in every yard? That's hardly the direction our economy has been moving in — either the agricultural economy or the lawn-care economy. But who's to say? The rise of the lawn was probably not foreseen. Would a return to personal farming be any more surprising? That's it for *Freakonomics Radio* this week. Coming up next time: Steve Hilton was for years the man behind, and beside, British prime minister David Cameron:

> Steve *HILTON: We haven't been in touch since the Brexit vote. There's not much to say beyond that.*

Now he lives in America, where he's taken up a new crusade:

> *HILTON: We want to end the way that big money donors dominate politics.*

And while Hilton is nearly unknown here, that won't last for long. He's got a new show on Fox News, *The Next Revolution*.

> *HILTON: That is going to focus on what I'm calling "positive populism:" how we deal with the issues that have arisen as a result of the populist uprisings we've seen around the world.*

Steve Hilton in all his candid, occasionally absurd glory:

> *HILTON: That's right.*

That's next time, on *Freakonomics Radio*.

* * *

Freakonomics Radio is produced by WNYC Studios and Dubner Productions. This episode was produced by Christopher Werth. Our staff also includes Shelley Lewis, Stephanie Tam, Merritt Jacob, Greg Rosalsky, Eliza Lambert, Alison Hockenberry, Emma Morgenstern, Harry Huggins and Brian Gutierrez; we also had help this week from Sam Bair. Thanks to Kevin Morris at the **National Turfgrass Evaluation Program**, Teresa Adams at the **University of Wisconsin-Madison**, Robert King of the **Delaware Department of Transportation** and Christopher Dilbeck and Dr. Michael Benjamin at the **California Air Resources Board** for their help in reporting this episode. Thanks also to **Justin Mabee**, **Amy Sturgeon**, **Pat Allen**, **John Faulkner**, **Sara Schneewind** and all of the other listeners who sent us their suggestions about lawn care. Ted Steinberg's latest book is *Gotham Unbound: The Ecological History of Greater New York*. You can subscribe to *Freakonomics Radio* on Apple Podcasts, Stitcher, or wherever you get your podcasts. You can also find us on Twitter and Facebook.

COLLAPSE TRANSCRIPT

SOURCES

- Eric Garcetti, the 42nd mayor of Los Angeles.
- Douglas Hecox, media relations director at the **U.S. Department of Transportation**; adjunct professor of journalism at **American University**.
- Jim Kovaleski, front-yard farmer.
- Cristina Milesi, scientific director at **EvalStat Research Center**; and geography and geospatial technology instructor at **Foothill College**.
- Ted Steinberg, Adeline Barry Davee Distinguished professor of history and professor of law at the **Case Western Reserve University School of Law**.
- **Alan Turner**, landscape architect and *Freakonomics Radio* listener.
- Sara Wigginton, Ph.D. candidate at the **University of Rhode Island**.

RESOURCES

- *American Green: The Obsessive Quest for the Perfect Lawn* by Ted Steinberg (W. W. Norton 2006).
- "Effects of Reduced Mowing in Roadside Medians on Stormwater Filtration and Invasive Species Management," Sara Wigginton (2015).
- "Mapping and Modeling the Biogeochemical Cycling of Turf Grasses in the United States," Cristina Milesi, Steven W. Running, Christopher D. Elvidge, John B. Dietz, Benjamin T. Tuttle and Ramakrishna R. Nemani (2005).
- "N.J. Town Bans Leaf Blowers: Noisy Nuisance or Needed Equipment?" Jessica Mazzola, *NJ.com*, (May 29, 2016).
- "We Know You Love Your Leaf Blower, But It's Ruining the Neighborhood," Adrian Higgins, *The Washington Post*. (November 1, 2016).

EXTRAS

- "Confessions of a Pothole Politician," *Freakonomics Radio* (2016).
- "Misconceptions About Lawns," Mental Floss (2015).
- "Nomadic gardener rents people's yards to grow produce," Kottke.org (2017).

COMMENTS

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NR **Nathan R**
6 years ago

Great episode, but there are so many more dimensions to lawns being stupid. Lawns are carbon sinks, but not very good ones. Turf grass has ~3" of roots where it stores carbon. Many native plant species (what was there before the lawns were) have 70"-140" deep roots that can store 20-40 times more carbon. Not only do lawns consume water to maintain (demand side), their short root system inhibits water from infiltrating the ground and replenishing underground aquifers (supply side). Finally, lawn grass is not native to North America, so much of the food chain (bees, butterflies, birds, etc) see grass as sterile like a parking lot. The removal and replacing of this food chain with lawns has wiped out many of the pollinators which pollinate billions of dollars worth of crops.

7 0 Reply • Share ›

Erik
6 years ago

I can't believe you did a Freakonomics episode on lawns without mentioning pollinators! I was so looking forward to such a discussion, and it was nowhere to be found :(

Pollinators, from bees to butterflies, see an all-grass lawn as a desert. Having a pollinator friendly lawn, with dandelions and other sources of pollinator food, is a small step anyone can take to improve the environment. Cutting such a lawn at a height of 3-4 inches to allow beneficial flowers to bloom is another.

5 0 Reply • Share ›

Joe B
6 years ago

Sure, lawns are a carbon sink. But if we stopped having "traditional" lawns, whatever would be filling that niche wood also be a carbon sink. Outside of hardcore rock xeriscapes and artificial turf, of course.

5 0 Reply • Share ›

N

Nelson S

6 years ago

I have a degree in horticulture, and manage a firm that does turfgrass as well as other plant installations for DOT and municipal work in the State of Indiana. I can say that INDOT has decreased its mowing over the years for cost reasons and that not many people have noticed.

The study about the roads in Rhode Island was interesting, and I would say that depending on the weed in question that mowing makes a difference in some cases and probably would not in others. Phragmites (invasive cat tail) for example would not benefit from mowing because it roots too quickly and takes over an area. But a lot of weeds do benefit from mowing in comparison to the areas around it. Kudzu (mentioned in the podcast) is a good example of a crazy invasive weed...that would take over quickly if left to their own devices...

In nature most prairie plants (I would assume that is the alternative to lawn in this scenario, though your Maryland example didn't really say) usually are burnt off by periodic fires started by lightning and the like. Mowing is an alternative to this and used to control weeds and rejuvenated (i.e. release dormancy of the seeds). When people ask or suggest to me that they want to use natives, I usually tell them that though natives are ideal in situations, they still require maintenance espeically during the 2 or so years it requires to get established. Eventually prairie will fill in and need less maintenance, but it will still need mowed every so often to rejuvenate and kill off some weeds.

Still if you just leave Tall Fescue (a lawn grass) alone, you can about do the same thing, that is mow once or twice a year, albeit it isn't really an ecosystem, it is more of a monoculture. Monocultures tend to not have an abundance of foodstuffs for wildlife and habitats for things like small birds. I would take a mature forest over a lawn any day ecologically speaking.

2 0 Reply • Share ›

0

0or8afh

6 years ago

So very interesting.

Within the last 3 years I came to the conclusion, sans all the scientific back-and-forth, that me having a lawn (about 1/2 acre) was a waste on every level I could conceive. So, I have been planting white clover, which is coming up nicely. At this rate, I anticipate that by 2020 the white clover will have overtaken the entire yard.

Yaaaaaaaaaay!

2 0 Reply • Share ›

NX-74205 → 0or8afh

6 years ago

Thanks for mentioning this. Too many people like myself don't need convincing lawns are extremely wasteful, but keep them because we just don't know what the

lawns are extremely wasteful, but keep them because we just don't know what the alternative is. I'm looking up white clover now!

0 0 Reply • Share ›

DG

Douglas Goldstein

6 years ago

Why did you gloss over the fact that water is heavily subsidized? If people actually had to pay market value for water, they wouldn't waste it on inefficient lawns.

1 0 Reply • Share ›

S

Seth

6 years ago

Another stupid obsession: school sports. I think it would be interesting to learn why that has emerged as such an obsession in our country, while many other countries handle sports outside of school, even at the college level, and seem to keep a bit more perspective about it than we do.

1 0 Reply • Share ›

A

ak → Seth

3 years ago

Some people find it interesting to watch people throw, hit or run with balls. And when they score, they've solved world hunger. LOL. Or when watching soccer, team is representing a country, but that team is mostly made of foreigners. LOL.

0 0 Reply • Share ›

Big Daddy → Seth

5 years ago

Although I'm not a big sports fan, school sports are part of America and not necessarily "stupid".

0 0 Reply • Share ›

H

homebuilding → Seth

6 years ago

.....and Seth,
just look what phony celebrity worship got us in the White House

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Big Daddy → homebuilding

5 years ago

Fake news!

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Stefan Farestam

6 years ago

Great episode! However, I was missing any mention of robotic lawn movers. I've been using the Husqvarna Automower for the past 8 years and it works amazingly well. I don't use any fertilizers as the cut grass goes back into the lawn and nor do I water the lawn. The total electricity consumption is negligible and there is virtually no sound pollution (I run it at night and it can barely be heard a few meters away). So most of the arguments in this episode fall flat. As the prices come down, I can't see any reason for using anything else, at least not for domestic use. Clearly roadside grass management is a different, but in Sweden (where I live) robotic lawn movers are increasingly being used by hotels and for public spaces.

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M

Marmocet

6 years ago edited

The scientist's analysis of grass as a carbon sink is essentially incorrect. It's better to think about lawns as being a carbon reservoir, because they reach "carbon equilibrium" - the point at which they emit as much co2 as they take up - fairly quickly. When you take into account all the carbon emitted from mowing and the manufacture and transport of fertilizers, herbicides, insecticides, etc., then the lawn as a cultural practice is a carbon-emitting activity.

When you think of a lawn as a carbon reservoir, you can compare it to carbon reservoirs in the form of landscape ecosystems that would exist if the lawn did not. You can think of it as a lawn's carbon opportunity cost. Here's what the carbon opportunity cost of a turf grass lawn is (excluding emissions from maintenance practices) in the Eastern US:

A turfgrass lawn at equilibrium represents a carbon reservoir of about 35-50tC/ha (this is probably a generous estimate). In the Eastern US, without human intervention, a turfgrass lawn would give way to temperate deciduous forest. According to research from Oak Ridge National Laboratory, temperate deciduous forests reach their equilibrium state as a carbon reservoir at 325-371tC/ha ±30%. So if you live in the eastern half of the US (or Canada or in Western Europe), your lawn is preventing an additional ~275-336tC/ha from being drawn out of the atmosphere and sequestered as organic matter.

Put another way, your lawn's carbon opportunity cost is something like 275-336 metric tonnes of carbon per hectare.

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The Dirty Scientist → Marmocet

6 years ago

What is your research evidence on turfgrass stands reaching carbon equilibrium "fairly quickly?" Turfgrass also presents many advantageous benefits such as decreasing erosion which reduces nutrient runoff, in urban environments it provides a "cooling effect" in the surrounding area, etc... To reduce turgrass to solely carbon equilavence to trees is too narrow focused. There is also strategies to create

improved turgrass stands while reducing on synthetic inputs, such as using organic byproducts (composts and biosolids) that improve the usually degraded soil and increase carbon in the soil. This will also reduce irrigation needs and has shown to decrease reliance on chemical applications for weeds, disease, and pests.

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J **Joshua Seal**

6 years ago

I was hoping there would be a discussion regarding artificial turf and how it compares to 'natural lawns' and alternatives...

1 0 Reply • Share ›

The Dirty Scientist → Joshua Seal

6 years ago

Depends on your situation. Artificial turf in a home lawn situation can be an expensive front cost. In addition, during the summertime artificial turf will absorb heat and be hot and uncomfortable to be on (surface temperatures can exceed 130 F). For athletic play, studies have shown a natural surface is better for the human anatomy (most athletes also prefer a natural grass). Alternative lawns could include planting of native species ranging from grasses to shrubs to trees. The most important thing for a yard is to have some type of groundcover so bare soil is not exposed. Even putting down mulch to prevent erosion is useful.

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C **Clinton Maffett**

2 months ago

The idea of a sustainable lawn that supports bio diversity in an age of eco crisis is something written about 50 years ago. Just ask the Monarch butterfly. Lawns are stupid as are people who think they are okay. Create a market for workers and companies who specialize in sustainable lawns. Maybe a solar house, cisterns, wind generators and compost toilets might interest someone? Lol. Just imagine a better world. I did when I was 12.

0 0 Reply • Share ›

yippee1999

2 years ago

Any talk of a 'new lack of jobs' if we were to cut back on lawns and therefore need fewer landscapers, and less frequently.... that's no reason to not save the planet. We simply need to think outside the box...what other jobs could these former landscapers do instead? If we are going to look at all such changes through the prism of potential job losses, then maybe we shouldn't worry about reducing the production of plastics either...because just think of all the plastic plant workers who'd lose jobs... ;-)

0 0 Reply • Share ›

abby

5 years ago

This is a great article. Replace that lawn with organic native FOOD and everyone would only benefit in every way possible. I live in central TEXAS, it is a semi-desert arid climate. Grass shouldn't grow here, it doesn't grow here. But food grows here, lots of native food, different greens, veggies, and fruits. Though all of my neighbors only grow grass and they are OBSESSED. I even live in an area where there are no lawn regulations. What is weird is that the grass doesn't grow here... so if you don't water, it won't grow. SO WHY ARE THEY WATERING??? lol. they water the grass 5 times a week because it is an ARID climate, and they have to mow 5 times a week. I didn't really care about any of this until my neighbor started complaining that i wasn't mowing my grass, although i don't have grass because I don't Obsess like them.. so no grass even grows. If i took a picture to compare my yard and hers, mine just looks natural, flat and arid, a few native plants giving life to the ladybugs, not at all overgrown or anything because again.. it is an arid climate... and hers is the only green spot around. we can't "manicure" the whole state now. she even started steeling water(but i have a system that hooks up to other houses, so those neighbors came out PO'd at the lack of water pressure when they were taking a shower and found her stealing my water.. LOL!!!! omg... I grow sweet potatoes, purslane, and other edible plants(that actually can grow here in this climate) up on my porch. I garden, I don't "manicure" inedible grass Obsessively. An example of how bad this situation of lawn obsession has gotten: dewberries are native here and delicious, but they don't grow anywhere near people, only out where people don't go, in the woods near the river. If there are people near the river, those fruits don't grow there. lol. There is only one spot that i know of where people don't go around here, so they don't touch the land, and i call it "dewberry forest". I picked a whole years worth of dewberries there in one spot(i separated the seeds easily in a food processor and strainer and spread them back over the area for sustainable harvesting and wildlife awareness). Why wouldn't the dewberries grow near humans? answer: lawns. People spray herbicides, pesticides, and mow excessively so no native species can grow. And HECOX tried to say the opposite??? whoever said that lawns prevent invasive species was an idiot or trying to persuade someone to buy something. lol.

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Lynne Russillo

6 years ago

The first thing I did after buying my house was to pull out the grass. The front yard is a shade garden, the back is a food garden. I grow food all year round in my very small garden in Northern Virginia. Many people grow food. The urban farming movement is growing, along with "foodscaping," and some groups offer to farm other people's front yards. See Grow Food Not Lawns on FB, for one source of information.

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H

homebuilding

6 years ago

Does anyone have access to a document outlining
--lawn maintenance equipment sales over the last 50 years

--motor fuel use by lawn maintenance equipment over the last 50 years

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J

Jan Marsh

6 years ago

Great episode! Just a thought. It seems that some of the largest "lawns" are the thousands of golf courses that dot the landscape. Unbelievable amounts of water every day; not to mention the fertilizer, insecticides.
How about converting some of these expansive "lawns" to community vegetable gardens?

0 0 Reply • Share ›

P

punter

6 years ago

the new grass craze happening on this of the pond. -
https://www.theguardian.com...

0 0 Reply • Share ›

Junk Chuck

6 years ago

I agree that what I call "chemical lawns" are ridiculous, and I should know: I made a fine living running a home-based lawn and landscape business for two decades. I just wanted to point out, however, that these numbers are a bit disengenuous. We have a .75 acre double town lot, about .25 of which is grass because that's all the vegetable and flower garden we can maintain. I expect to spend about $20.00 in expenses this year: about three gallons of gas, a small bottle of two cycle oil, and 50 feet of string trimmer line. The lawn mower cost $400 and is about 7 years old, the string trimmer $250 and is 3 years old (I backed the truck over the last one). Prorate those over, say, a decade, and that's still putting me around $80 annually. No fertilizer: leaving clippings of grass and clover self-feeds the lawn and makes the bees happy, and if it gets high and we need to bag, that goes in the compost, which feeds the 60x70 food garden. Yum. We don't supplemental water, either. Drought makes the grass root more deeply, and a brown lawn isn't dead, just dormant. Now, I don't live in McMansionville, but none of my neighbors do the Suburban Shuffle, which leads me to think the numbers aren't so dire as demonstrated.

The carbon sink argument is too absurd to even mention. Unless you don't mow.

On the other hand, I'm just in from sitting on the patio watching my yard sparkling with fireflies--or lightning bugs, as we call them around here. One thing I used to notice: suburban neighborhoods filled with sheeple riding the Chemical Train were virtually devoid of this hallmark of summer. The anti-grub poison saturated those putting greens kills them right along with annoying junebugs and Japanese beetles. Me, I'll take the lightning bugs.

0 0 Reply • Share ›

Karney Hatch

6 years ago

I made a whole movie that was inspired by this question, and led to working with Food Not Lawns in Claremont, CA and then all over the world. Then I got Daryl Hannah to be my celebrity narrator! You can watch it here on Amazon, it's called Plant This Movie:

https://www.amazon.com/Plan...

0 0 Reply • Share ›

TegraMan

6 years ago

Why are we obsessed with lawns? A leading theory of human origins is that our bipedal ancestors evolved from primates as they emerged from the jungle into the African savanna. A savanna is defined as grasslands with sparse trees and shrubs, which is also a pretty good description of the typical suburban yard. In the natural savanna, short grass indicates the presence of grazing animals, which our ancestors would have hunted for food (or scavenged off other other predator's kills - note that we also like to keep dogs and cats in our yards). So our ancestors would have instinctively felt content in such places, and it is this same contentment were are recreating in our suburban yards.

0 0 Reply • Share ›

Benjamin Vogt

6 years ago

The reasons lawns "smell great" is because they're releasing VOCs that are a scream for help and warning to other plants to defend themselves from attack.

0 0 Reply • Share ›

Cristina Schmitt

6 years ago

Another side effect of lawn obsession

0 0 Reply • Share ›

M manuke1953

6 years ago

A very interesting topic. First of all, i have to say that I live in lawnless Tokyo Whenever I return to Vancouver B.C., I love to see the lawns, gardens, verges and greenery in general. So much is taken or granted. Now, I find the smell of a freshly cut lawn to be exotic. Having said that, I do

think that lawns could be better managed or reverted into a more natural state.
Here's an idea: use sheep as lawnmowers:
http://www.telegraph.co.uk/...
I can't recall the reference but i once read that lawn and garden care was encouraged by churches in the US when the working week was reduced from 6 to 5 days. The underlying reason for this was that idle hands were the devil's tools. Gardening kept people busy and a well-manicured lawn became a status symbol.

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FrankLee

6 years ago

seems that the show raised an important question -- are lawns positive or negative -- but didn't arrive at an answer. weird journalism.

0 0 Reply • Share ›

Andy Smith ➦ FrankLee

6 years ago

There are positives and negatives which different people will give different weights meaning to some people or some circumstances grass is a positive, for other people and situations it may cause waste or have a net negative effect.

0 0 Reply • Share ›

NP

Nancy Palmer

6 years ago

Related to the podcast on lawns, I just returned from Saint Lucia where one of the first things noticed by all of us after we left the airport was the number of cows and goats that grazed without fences along the road. Our guide explained that the animals were tethered and moved frequently throughout the island. The law allows them to feast anywhere, even private land, as long as they are not eating someone's garden. Upon returning to the states, departing our airport and entering the interstate, I was struck with the idea that all the median strips that require mowing could be usefully employed to feed our domestic animals. Trading lawn mowing, fertilizing, weed eradicating chemicals in for creating a virtually cost free habitat for

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